

This document gives pertinent information concerning the reissuance of the VPDES Permit listed below. This permit is being processed as a minor, municipal permit. The discharge results from the operation of a 0.0075 MGD wastewater treatment plant. The effluent limitations and special conditions contained in this permit will maintain the Water Quality Standards of 9 VAC 25-260-00 et seq.

1. Facility Name and Mailing Address: Evergreen Country Club
P.O. Box 176
Haymarket, VA 22069
SIC Code: 4952 WWTP
Facility Location: East side of SR 600, approximately 1.5 miles south of SR 701
County: Prince William
Facility Contact Name: Donald F. Hearl
Telephone Number: 540-825-6660
2. Permit No.: VA0087891
Current Expiration Date: 27 May 2008
Other VPDES Permits: Not Applicable
Other Permits: Not Applicable
E2/E3/E4 Status: Not Applicable
3. Owner Name: Evergreen Country Club
Owner Contact/Title: Bryan Dolieslager / Club Manager
Telephone Number: 703-754-4125
4. Application Complete Date: 4 March 2008
Permit Drafted By: Douglas Frasier
Date Drafted: 15 April 2008
Draft Permit Reviewed By: Alison Thompson
Date Reviewed: 22 April 2008
Public Comment Period: Start Date: 22 May 2008
End Date: 23 June 2008
5. Receiving Waters Information: See **Attachment 1** for the Flow Frequency Determination
Receiving Stream Name: Chestnut Lick, UT
Drainage Area at Outfall: 0.83 square miles
River Mile: 0.78
Stream Basin: Potomac River
Subbasin: Potomac River
Section: 07a
Stream Class: III
Special Standards: g
Waterbody ID: VAN-A21R
7Q10 Low Flow: 0.0 MGD
7Q10 High Flow: 0.0 MGD
1Q10 Low Flow: 0.0 MGD
1Q10 High Flow: 0.0 MGD
Harmonic Mean Flow: 0.0 MGD
30Q5 Flow: 0.0 MGD
303(d) Listed: No
30Q10 Flow: 0.0 MGD
TMDL Approved: Yes
Date TMDL Approved: 15 November 2006
6. Statutory or Regulatory Basis for Special Conditions and Effluent Limitations:

<u>✓</u> State Water Control Law <u>✓</u> Clean Water Act <u>✓</u> VPDES Permit Regulation <u>✓</u> EPA NPDES Regulation	<u> </u> EPA Guidelines <u>✓</u> Water Quality Standards <u>✓</u> Other: Occoquan Policy
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7. Licensed Operator Requirements: Class III
8. Reliability Class: Class I

9. Permit Characterization:

<input checked="" type="checkbox"/> Private	<input checked="" type="checkbox"/> Effluent Limited	<input type="checkbox"/> Possible Interstate Effect
<input type="checkbox"/> Federal	<input checked="" type="checkbox"/> Water Quality Limited	<input type="checkbox"/> Compliance Schedule Required
<input type="checkbox"/> State	<input type="checkbox"/> Toxics Monitoring Program Required	<input type="checkbox"/> Interim Limits in Permit
<input type="checkbox"/> POTW	<input type="checkbox"/> Pretreatment Program Required	<input checked="" type="checkbox"/> Interim Limits in Other Document
<input checked="" type="checkbox"/> TMDL		

10. Wastewater Sources and Treatment Description:

This facility is a privately owned sewage treatment plant, which serves a Country Club and Golf Course facility.

The previous system design consisted of a bar screen, extended aeration basin and secondary clarifier followed by a 225,000 gallon polishing pond. Disinfection was accomplished via hypochlorination followed by tablet dechlorination and post aeration prior to final discharge.

A Special Consent Order was entered between the facility and the State Water Control Board on 8 October 2002 due to repeated violations of effluent limitations. Due to the age and condition of the previous system, it was agreed that the treatment system be replaced with a new facility. In March 2008, an updated Special Consent Order was drafted updating the current status and the schedule of compliance. See Section 27 of this Fact Sheet for further details.

The current system came on line in July 2007, consisting of a Sequencing Batch Reactor (SBR) package plant. Influent is pumped via a grinder pump station to an 8,000-gallon equalization tank. The wastewater is then transferred to one of two batch reactors resulting in biological treatment for BOD and ammonia removal via aeration, solids settling and decanting sequences. The decant flows via gravity to an effluent holding tank prior to being transferred to an upflow, deep bed, granular media filter. Disinfection is accomplished by one of two ultraviolet units followed by post aeration before being discharged.

See **Attachment 2** for a facility schematic/diagram.

TABLE 1 Outfall Description				
Outfall Number	Discharge Sources	Treatment	Design Flow	Outfall Latitude and Longitude
001	Domestic Wastewater	See Item 10 above.	0.0075 MGD	38° 52' 58" N 77° 39' 27" W
See Attachment 3 for topographic map.				

11. Sludge Treatment and Disposal Methods:

Wasted sludge is transferred to an aerated holding tank. A contractor pumps out the holding tank as needed and the sludge is hauled to the Fauquier County Service Authority's Remington WWTP (VA0076805) for further treatment and final disposal. This plant generates approximately 0.904 metric tons per year.

12. Discharges, Intakes, Monitoring Stations, Other Items in Vicinity of Discharge:

TABLE 2 Discharges, Intakes & Monitoring Stations	
VAG406209 VAG406221 VAG406240 VAG406247 VAG406270 VAG406162 VAG406411 VAG406281 VAG406404	Multiple discharges for domestic sewage treatment systems are located on various unnamed tributaries to Chestnut Lick within approximately a 1.5 mile radius of Evergreen Country Club. Each discharge is less than 1,000 gpd. None of the discharges are near the Evergreen outfall.

13. **Material Storage:** There are no chemicals stored on site.

14. **Site Inspection:** Performed by NRO staff on 15 January 2008. See **Attachment 4** for the Technical Inspection Summary. The entire inspection report is located in the reissuance file.

15. **Receiving Stream Water Quality and Water Quality Standards:**

a). Ambient Water Quality Data

There is no DEQ monitoring data for the receiving stream. The unnamed tributary of Chestnut Lick has not been listed as impaired under the 303(d) but numerous downstream impairments for *E. coli* do exist. On 15 November 2006, the EPA approved the Occoquan River Watershed bacteria TMDL. Even though the receiving stream was not included in the TMDL, all sources of *E. coli* were identified and given an allocation.

b). Receiving Stream Water Quality Criteria

Part IX of 9 VAC 25-260 (360-550) designates classes and special standards applicable to defined Virginia river basins and sections. The receiving stream Chestnut Lick, UT is located within Section 07a of the Potomac River Basin and classified as Class III water.

At all times, Class III waters must achieve a dissolved oxygen (D.O.) of 4.0 mg/L or greater, a daily average D.O. of 5.0 mg/L or greater, a temperature that does not exceed 32°C and maintain a pH of 6.0 – 9.0 standard units (S.U.).

Attachment 5 details other water quality criteria applicable to the receiving stream.

Ammonia:

Staff has re-evaluated the effluent data for pH and finds no significant differences from the data used to establish ammonia criteria and subsequent effluent limits in the previous permit. Since there is no effluent temperature data, it is staff's best professional judgement that the temperature values would also exhibit no significant difference. Therefore, the previously established pH and temperature values will be carried forward as part of this reissuance process.

Metals:

There is no hardness data for this facility. Staff guidance suggests using a default hardness value of 50 mg/L CaCO₃ for streams east of the Blue Ridge. The hardness-dependent metals criteria in **Attachment 5** are based on this in-stream value.

Bacteria Criteria:

The Virginia Water Quality Standards (9 VAC 25-260-170 B.) states sewage discharges shall be disinfected to achieve the following criteria:

E. coli bacteria per 100 mL of water shall not exceed the following:

	Geometric Mean ¹	Single Sample Maximum
Freshwater <i>E. coli</i> (N/100 mL)	126	235

¹For two or more samples taken during any calendar month.

c). Receiving Stream Special Standards

The State Water Control Board's Water Quality Standards, River Basin Section Tables (9 VAC 25-260-360, 370 and 380) designates the river basins, sections, classes and special standards for surface waters of the Commonwealth of Virginia. The receiving stream, Chestnut Lick, UT, is located within Section 07a of the Potomac River Basin. This section has been designated with a special standard of "g".

Special Standard "g" refers to the Occoquan Watershed policy (9 VAC 25-410). The regulation sets stringent treatment and discharge requirements in order to improve and protect water quality, particularly since the waters are an important water supply for Northern Virginia. The regulation generally prohibits new STPs and only allows minor industrial discharges.

d). Threatened or Endangered Species

The Virginia DGIF Fish and Wildlife Information System Database was searched for records to determine if there are threatened or endangered species in the vicinity of the discharge. The following threatened or endangered species were identified within a 2 mile radius of the discharge: Dwarf Wedgemussel, Brook Floater (both mollusks); Upland Sandpiper, Loggerhead Shrike, Henslow's Sparrow, Migrant Loggerhead Shrike (all song birds) and the Bald Eagle. The limits proposed in this draft permit are protective of the Virginia Water Quality Standards and therefore, protect the threatened and endangered species found near the discharge.

16. Antidegradation (9 VAC 25-260-30):

All state surface waters are provided one of three levels of antidegradation protection. For Tier 1 or existing use protection, existing uses of the water body and the water quality to protect these uses must be maintained. Tier 2 water bodies have water quality that is better than the water quality standards. Significant lowering of the water quality of Tier 2 waters is not allowed without an evaluation of the economic and social impacts. Tier 3 water bodies are exceptional waters and are so designated by regulatory amendment. The antidegradation policy prohibits new or expanded discharges into exceptional waters.

The receiving stream has been classified as Tier 1 based on the fact that the critical flows (7Q10 and 1Q10) have been determined to be 0.0 MGD. Permit limits proposed have been established by determining wasteload allocations which will result in attaining and/or maintaining all water quality criteria which apply to the receiving stream, including narrative criteria. These wasteload allocations will provide for the protection and maintenance of all existing uses.

17. Effluent Screening, Wasteload Allocation, and Effluent Limitation Development:

To determine water quality-based effluent limitations for a discharge, the suitability of data must first be determined. Data is suitable for analysis if one or more representative data points are equal to or above the quantification level ("QL") and the data represent the exact pollutant being evaluated.

Next, the appropriate Water Quality Standards (WQS) are determined for the pollutants in the effluent. Then, the Wasteload Allocations (WLAs) are calculated. In this case since the critical flows 7Q10 and 1Q10 have been determined to be zero, the WLAs are equal to the WQS. The WLA values are then compared with available effluent data to determine the need for effluent limitations. Effluent limitations are needed if the 97th percentile of the daily effluent concentration values is greater than the acute wasteload allocation or if the 97th percentile of the four-day average effluent concentration values is greater than the chronic wasteload allocation. Effluent limitations are based on the most limiting WLA, the required sampling frequency and statistical characteristics of the effluent data.

a). Effluent Screening:

Effluent data obtained from the Discharge Monitoring Reports (DMR) has been reviewed and determined to be suitable for evaluation. Please see **Attachment 6** for a summary of effluent data.

b). Mixing Zones and Wasteload Allocations (WLAs):

Wasteload allocations (WLAs) are calculated for those parameters in the effluent with the reasonable potential to cause an exceedance of water quality criteria. The basic calculation for establishing a WLA is the steady state complete mix equation:

$$WLA = \frac{C_o [Q_e + (f)(Q_s)] - [(C_s)(f)(Q_s)]}{Q_e}$$

Where:

WLA	=	Wasteload allocation
C _o	=	In-stream water quality criteria
Q _e	=	Design flow
Q _s	=	Critical receiving stream flow (1Q10 for acute aquatic life criteria; 7Q10 for chronic aquatic life criteria; harmonic mean for carcinogen-human health criteria; 30Q10 for ammonia criteria; and 30Q5 for non-carcinogen human health criteria)
f	=	Decimal fraction of critical flow
C _s	=	Mean background concentration of parameter in the receiving stream.

The water segment receiving the discharge via Outfall 001 is considered to have a 7Q10 and 1Q10 of 0.0 MGD. As such, there is no mixing zone and the WLA is equal to the C_o.

c). Effluent Limitations Toxic Pollutants, Outfall 001

9 VAC 25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Those parameters with WLAs that are near effluent concentrations are evaluated for limits.

The VPDES Permit Regulation at 9 VAC 25-31-230.D. requires that monthly and weekly average limitations be imposed for continuous discharges from POTWs and monthly average and daily maximum limitations be imposed for all other continuous non-POTW discharges.

Ammonia as N/TKN:

Staff evaluated the effluent data since the last reissuance. In general, the facility was unable to achieve the permitted limit for TKN. However, based on the proposed limitations in the July 1992 model and the treatment capability of the new plant, it is staff's best professional judgement that the existing TKN limitations be carried forward with this reissuance.

d). Effluent Limitations and Monitoring, Outfall 001 – Conventional and Non-Conventional Pollutants

No changes to Dissolved Oxygen (D.O.), carbonaceous Biochemical Oxygen Demand-5 day (cBOD₅), Total Suspended Solids (TSS), Total Kjeldahl Nitrogen (TKN) and pH limitations are proposed.

Dissolved Oxygen and cBOD₅ limitations are based on the stream modeling conducted in July 1992 (**Attachment 7**) and are set to meet the water quality criteria for D.O. in the receiving stream.

pH limitations are set at the water quality criteria.

E. coli limitations are in accordance with the Water Quality Standards 9 VAC25-260-170.

e). Effluent Limitations and Monitoring Summary.

The effluent limitations are presented in the following table. Limits were established for cBOD₅, TSS, TKN, pH, D.O. and *E. coli*.

The limit for TSS is based on Best Professional Judgement.

The mass loading (kg/d) for monthly and weekly averages were calculated by multiplying the concentration values (mg/L) with the flow values (in MGD) and a conversion factor of 3.785.

Sample Type and Frequency are in accordance with the recommendations in the VPDES Permit Manual.

18. Antibacksliding:

All limits in this permit are at least as stringent as those previously established. Backsliding does not apply to this reissuance.

19. Effluent Limitations/Monitoring Requirements:

Design flow is 0.0075 MGD.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Weekly Average	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	N/A	NL	N/A	N/A	NL	1/D	Estimate
pH	3	N/A	N/A	6.0 S.U.	9.0 S.U.	1/D	Grab
cBOD ₅	3,5	10 mg/L 0.28 kg/day	15 mg/L 0.43 kg/day	N/A	N/A	1/M	Grab
Total Suspended Solids	2	15 mg/L 0.42 kg/day	22 mg/L 0.62 kg/day	N/A	N/A	1/M	Grab
DO	3,5	N/A	N/A	6.5 mg/L	N/A	1/D	Grab
Total Kjeldahl Nitrogen	3	5.0 mg/L 0.14 kg/day	7.5 mg/L 0.21 kg/day	N/A	N/A	1/M	Grab
<i>E. coli</i>	3, 4	126 n/100 mL	N/A	N/A	N/A	2/M	Grab

The basis for the limitations codes are:

1. Federal Effluent Requirements
2. Best Professional Judgement
3. Water Quality Standards
4. Occoquan River Watershed TMDL
5. Stream Model – **Attachment 7**

MGD = Million gallons per day.

N/A = Not applicable.

NL = No limit; monitor and report.

S.U. = Standard units.

1/D = Once every day.

1/M = Once every month.

2/M = Twice every month, > 7 days apart.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

20. Other Permit Requirements:Part I.B. of the permit contains quantification levels and compliance reporting instructions.

9 VAC 25-31-190.L.4.c. requires an arithmetic mean for measurement averaging and 9 VAC 25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Specific analytical methodologies for toxics are listed in this permit section as well as quantification levels (QLs) necessary to demonstrate compliance with applicable permit limitations or for use in future evaluations to determine if the pollutant has reasonable potential to cause or contribute to a violation. Required averaging methodologies are also specified.

21. Other Special Conditions:

- 95% Capacity Reopener. The VPDES Permit Regulation at 9 VAC 25-31-200.B.2. requires all POTWs and PVOTWs develop and submit a plan of action to DEQ when the monthly average influent flow to their sewage treatment plant reaches 95% or more of the design capacity authorized in the permit for each month of any three consecutive month period. The facility is a PVOTW.
- Indirect Dischargers. Required by VPDES Permit Regulation, 9 VAC 25-31-280 B.9 for POTWs and PVOTWs that receive waste from someone other than the owner of the treatment works.
- O&M Manual Requirement. Required by Code of Virginia §62.1-44.19; Sewage Collection and Treatment Regulations, 9 VAC 25-790; VPDES Permit Regulation, 9 VAC 25-31-190.E. The permittee submitted an Operations and Maintenance (O&M) Manual for the new facility to the DEQ Northern Regional Office for approval on 20 November 2007. Future changes to the facility must be addressed by the submittal of a revised O&M Manual within 90 days of the changes. Non-compliance with the O&M Manual shall be deemed a violation of the permit.
- CTC, CTO Requirement. The Code of Virginia § 62.1-44.19; Sewage Collection and Treatment Regulations, 9 VAC 25-790 requires that all treatment works treating wastewater obtain a Certificate to Construct prior to commencing construction and to obtain a Certificate to Operate prior to commencing operation of the treatment works.
- Licensed Operator Requirement. The Code of Virginia at §54.1-2300 et seq. and the VPDES Permit Regulation at 9 VAC 25-31-200 D, and Rules and Regulations for Waterworks and Wastewater Works Operators (18 VAC 160-20-10 et seq.) requires licensure of operators. This facility requires a Class III operator.
- Reliability Class. The Sewage Collection and Treatment Regulation at 9 VAC 25-790 requires sewerage works achieve a certain level of reliability in order to protect water quality and public health consequences in the event of component or system failure. The facility is required to meet reliability Class I.

- g) Sludge Reopener. The VPDES Permit Regulation at 9 VAC 25-31-200.C.4. requires all permits issued to treatment works treating domestic sewage (including sludge-only facilities) include a reopener clause allowing incorporation of any applicable standard for sewage sludge use or disposal promulgated under Section 405(d) of the CWA. The facility includes a sewage treatment works.
- h) Sludge Use and Disposal. The VPDES Permit Regulation at 9 VAC 25-31-100.P., 220.B.2., and 420-720, and 40 CFR Part 503 require all treatment works treating domestic sewage to submit information on their sludge use and disposal practices and to meet specified standards for sludge use and disposal. Technical requirements may be derived from the Virginia Department of Health's Biosolids Use Regulations, 12 VAC 5-585-10 et seq. The facility includes a treatment works treating domestic sewage.
- i) Treatment Works Closure Plan. The State Water Control Law §62.1-44.15:1.1, makes it illegal for an owner to cease operation and fail to implement a closure plan when failure to implement the plan would result in harm to human health or the environment. This condition is used to notify the owner of the need for a closure plan where a facility is being replaced or is expected to close.
- j) Occoquan Watershed Policy. The Policy states that the permittee must eliminate the discharge from the facility by connecting to public sewer within one hundred eighty (180) days of the date public sewerage facilities become available.
22. Permit Section Part II. Part II of the permit contains standard conditions that appear in all VPDES Permits. In general, these standard conditions address the responsibilities of the permittee, reporting requirements, testing procedures and records retention.
23. **Changes to the Permit from the Previously Issued Permit:**
- a) Special Conditions: None
- b) Monitoring and Effluent Limitations: Total Residual Chlorine was removed with this reissuance since the facility was upgraded and installed UV disinfection.
24. **Variances/Alternate Limits or Conditions:** None
25. **Public Notice Information:**
- First Public Notice Date: 21 May 2008 Second Public Notice Date: 28 May 2008
- Public Notice Information is required by 9 VAC 25-31-280 B. All pertinent information is on file and may be inspected and copied by contacting the: Northern DEQ Regional Office, 13901 Crown Court, Woodbridge, VA 22193, Telephone No. (703) 583-3873, ddfrasier@deq.virginia.gov. See **Attachment 8** for a copy of the public notice document.
- Persons may comment in writing or by email to the DEQ on the proposed permit action, and may request a public hearing, during the comment period. Comments shall include the name, address, and telephone number of the writer, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The DEQ may decide to hold a public hearing if public response is significant. Requests for public hearings shall state the reason why a hearing is requested, the nature of the issues proposed to be raised in the public hearing and a brief explanation of how the requester's interests would be directly and adversely affected by the proposed permit action. Following the comment period, the Board will make a determination regarding the proposed permit action. This determination will become effective, unless the DEQ grants a public hearing. Due notice of any public hearing will be given.
26. **303 (d) Listed Stream Segments and Total Max. Daily Loads (TMDL):**
- Evergreen Country Club was given an allocation for *E. coli* under the Occoquan River Watershed TMDL of 6.75×10^{10} cfu/year. The proposed *E. coli* limitations are in compliance with the TMDL and should not contribute to the downstream impairment.
- TMDL Reopener: This special condition is to allow the permit to be reopened if necessary to bring it into compliance with any applicable TMDL that may be developed and approved for the receiving stream.

27. Additional Comments:

Previous Board Action(s): On 3 May 2002, the facility and the State Water Control Board entered a Special Consent Order agreeing that the extended aeration basin and polishing pond would be abandoned and replaced with a new treatment system to resolve the issue of continued effluent violations of TSS, TKN, D.O., chlorine and cBOD₅.

In March of 2008, a new Special Consent Order was drafted reflecting the current status of the installed SBR treatment unit and updating the schedule of compliance regarding the closure of the old treatment units. This Order is scheduled to go before the Board in June 2008. See **Attachment 9**.

Staff Comments: The reissuance of this permit was delayed due to the late submittal of the application package.

Public Comment: No comments were received during the public notice.

EPA Checklist: The checklist can be found in **Attachment 10**.

Fact Sheet Attachments – Table of Contents

Evergreen Country Club Sewage Treatment Plant VA0087891 2008 Reissuance

Attachment 1	Flow Frequency Determination
Attachment 2	Facility Schematic/Diagram
Attachment 3	Topographic Map
Attachment 4	Site Inspection Report
Attachment 5	Wasteload Allocation Analysis
Attachment 6	Effluent Data
Attachment 7	29 July 1992 Stream Model
Attachment 8	Public Notice
Attachment 9	Draft Amendment Special Consent Order March 2008
Attachment 10	EPA Checklist

MEMORANDUM

DEPARTMENT OF ENVIRONMENTAL QUALITY - WATER DIVISION
 Water Quality Assessments and Planning
 629 E. Main Street P.O. Box 10009 Richmond, Virginia 23240

SUBJECT: Flow Frequency Determination
 Evergreen Country Club STP - VA#0087891

TO: James Engbert, ENRO

FROM: Paul E. Herman, P.E., WQAP *Paul*

DATE: February 4, 1998

COPIES: Ron Gregory, Charles Martin, File

The Evergreen Country Club STP discharges to an unnamed tributary to the Chestnut Lick near Catharpin, VA. Stream flow frequencies are required at this site for use by the permit writer in developing effluent limitations for the VPDES permit.

The VDEQ operated a continuous record gage on the Bull Run near Catharpin, VA (#01656725) from 1969 to 1986. The gage was located downstream of the discharge point at the Route 705 bridge in Prince William County, VA. The flow frequencies for the gage and the discharge point are presented below. The values at the discharge point were determined by drainage area proportions and do not address any withdrawals, discharges, or springs lying upstream.

Bull Run near Catharpin, VA (#01656725):

Drainage Area = 25.8 mi ²	
1Q10 = 0.0 cfs	High Flow 1Q10 = not contiguous
7Q10 = 0.0 cfs	High Flow 7Q10 = not contiguous
3Q5 = 0.06 cfs	HM = 0.0 cfs

UT to Chestnut Lick at discharge point:

Drainage Area = 0.83 mi ²	
1Q10 = 0.0 cfs	High Flow 1Q10 = --- cfs
7Q10 = 0.0 cfs	High Flow 7Q10 = --- cfs
3Q5 = 0.0 cfs	HM = 0.0 cfs

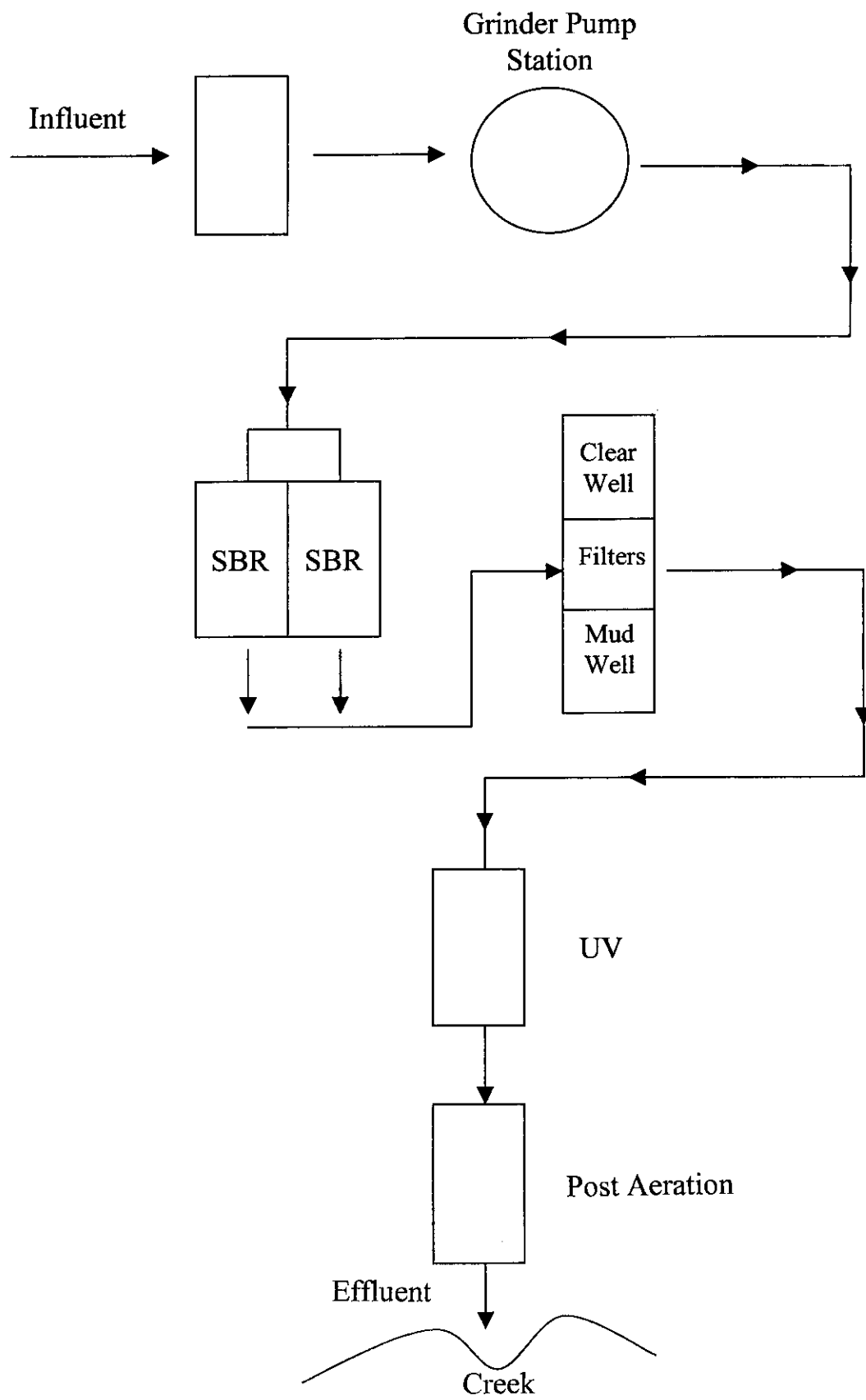
0 cfs = 0 MGD

If you have any questions concerning this analysis, please let me know.

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Northern VA. Region





Technical Inspection Summary

Comments/Recommendations for action from current inspection on January 15, 2008:

- The facility returned to pump and haul on January 14, 2008.
- Loss of solids from the plant was evident at the outfall – sludge was observed at the outfall and downstream (photos 10-11). DEQ is unsure if the solids observed is a recent loss or remnants of the observations made during a site visit conducted August 10, 2007.
- A small area of ground between the CSBR tank and the operator building contained a white powdery substance – it appears to be lime – evidence of recent pump and haul activities are evident on the side of the CSBR unit (Photo 4).
- The contract operator was unsure if the influent pump station was connected to the backup generator.
Please determine the status of the pump station connection to the generator and provide an update to DEQ in writing.
- Discussion and Correspondence between the Facility, Contract Operators, Engineering Consultants, and DEQ revealed the following: **Please provide written updates as scheduling and completion of these items occur.**
 - The CSBR cycle time is currently set to 85 minutes air, 60 minutes settle, 40 minutes decant – this timing has not been optimized due to the various issues the plant has encountered upon startup.
 - The contract operator conducted a walk through of the facility and provided the following punch list:
 - UV system: two new circuit boards were ordered for the UV system on 1/17. Upon arrival of the boards one will be installed into the unit. The other circuit board will be onsite as back up. This work will be completed by the end of February.

On 11/5/07 the onsite operator discovered the system was backed up due to accumulation of debris around the units. DEQ staff noted during a prior site visit that the open concrete chamber housing the UV system did not contain a drain to allow the release of stormwater or a return valve to return flow back to the CSBR. Options were discussed during the 1/15/08 inspection; the following is result of that discussion:

The second part to the UV system is installing a valve, drain, and raising the floor in the UV vault. This is a combined effort between Evergreen and ESS. This will be scheduled on a day when ESS maintenance is onsite doing the work on the UV system and influent valves. This work will be completed by the end of February.
 - Influent Valve problem: Two new 1 ½ inch pinch valves, and other parts and fittings were ordered on 1/15. We have received all of the parts and fittings, but are awaiting the pinch valves, which are on special order. Once we receive these valves we can install the proper size of pipe diameter, which will give the influent greater velocity. With the greater velocity and pinch valves installed, the influent valves will be less likely to clog, and cause both SBRs to fill up evenly. Upon arrival of the two pinch valves, ESS maintenance will install the valves as soon as possible. This work will be completed by the end of February.
 - Sand Filter: **A design flaw was discovered after a filter malfunction on 11/28/07. The filter and filter clearwell is approximately two inches below the filter overflow elevation. It was also discovered that the final effluent pipe was 3 feet above design elevation. The combination of these flaws causes backup at the filter unit as soon as any accumulation occurs in the filter media. The unit has been returned to service without the sand. The following is the decision on how to handle interim operation until corrections of the flaws can be accomplished.** I recall it was decided to wait on reinstalling the sand until the effluent pipe elevation is corrected by the engineer/contractor. This will allow the proper head pressure to be obtained so the supernatant is able to be filtered through. I believe the engineer stated that the effluent pipe was supposed to be three feet lower in elevation than what was constructed. We are waiting on the engineer/contractor to correct this.

- Roof over control panel: **DEQ and operations staff expressed concerns with the exposure of the control panel to the elements.** Evergreen maintenance will install a roof over the control panel area - anticipated completion is April 18, 2008.
- Fence: **DEQ expressed concern of the "openness" of the facility – especially the controls during the last several site visits.** ESS sent a drawing to Evergreen maintenance of where the proposed fence will be installed on 1/17. Evergreen maintenance is anticipating completion of the fence by April 18, 2008.
- Lagoon: Due to unanticipated problems encountered with the WWTP de-watering of the lagoon will be temporarily delayed.
- SBR Tank Insulation: **Correspondence from the DEQ Office of Wastewater Engineering dated 2004 required the SBR tanks be insulated to protect microorganisms during cold weather.** ESS is currently discussing with the project engineer what type of insulation is needed on the tanks, and whether to only insulate the SBR tanks, or the filter, clear well and mud well tanks. ESS is actively soliciting bids from contractors to apply such insulation. We should have one lined up by February 15, 2008. The work will be completed shortly after.

FRESHWATER WATER QUALITY CRITERIA / WASTELOAD ALLOCATION ANALYSIS

Facility Name: **Evergreen Country Club STP**

Permit No.: **VA0087891**

Receiving Stream: **Chestnut Lick, UT**

Version: OWP Guidance Memo 00-2011 (8/24/00)

Stream Information

Mean Hardness (as CaCO3) = **50** mg/L
 90% Temperature (Annual) = **25** deg C
 90% Temperature (Wet season) = **25** deg C
 90% Maximum pH = **8** SU
 10% Maximum pH = **8** SU
 Tier Designation (1 or 2) = **1**
 Public Water Supply (PWS) Y/N? = **n**
 Trout Present Y/N? = **n**
 Early Life Stages Present Y/N? = **y**

Stream Flows

1Q10 (Annual) = **0** MGD
 7Q10 (Annual) = **0** MGD
 30Q10 (Annual) = **0** MGD
 1Q10 (Wet season) = **0** MGD
 30Q10 (Wet season) = **0** MGD
 30Q5 = **0** MGD
 Harmonic Mean = **0** MGD
 Annual Average = **0** MGD

Mixing Information

Annual - 1Q10 Mix = **100** %
 - 7Q10 Mix = **100** %
 - 30Q10 Mix = **100** %
 Wet Season - 1Q10 Mix = **100** %
 - 30Q10 Mix = **100** %

Effluent Information

Mean Hardness (as CaCO3) = **50** mg/L
 90% Temp (Annual) = **25** deg C
 90% Temp (Wet season) = **25** deg C
 90% Maximum pH = **8** SU
 10% Maximum pH = **8** SU
 Discharge Flow = **0.0075** MGD

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Acenaphthene	0	--	--	na	2.7E+03	--	--	na	2.7E+03	--	--	--	--	--	--	--	--	--	--	na	2.7E+03
Acrolein	0	--	--	na	7.8E+02	--	--	na	7.8E+02	--	--	--	--	--	--	--	--	--	--	na	7.8E+02
Acrylonitrile ^C	0	--	--	na	6.6E+00	--	--	na	6.6E+00	--	--	--	--	--	--	--	--	--	--	na	6.6E+00
Aldrin ^C	0	3.0E+00	--	na	1.4E-03	3.0E+00	--	na	1.4E-03	--	--	--	--	--	--	--	--	3.0E+00	--	na	1.4E-03
Ammonia-N (mg/l) (Yearly)	0	8.41E+00	1.24E+00	na	--	8.4E+00	1.2E+00	na	--	--	--	--	--	--	--	--	--	8.4E+00	1.2E+00	na	--
Ammonia-N (mg/l) (High Flow)	0	8.41E+00	2.43E+00	na	--	8.4E+00	2.4E+00	na	--	--	--	--	--	--	--	--	--	8.4E+00	2.4E+00	na	--
Anthracene	0	--	--	na	1.1E+05	--	--	na	1.1E+05	--	--	--	--	--	--	--	--	--	--	na	1.1E+05
Antimony	0	--	--	na	4.3E+03	--	--	na	4.3E+03	--	--	--	--	--	--	--	--	--	--	na	4.3E+03
Arsenic	0	3.4E+02	1.5E+02	na	--	3.4E+02	1.5E+02	na	--	--	--	--	--	--	--	--	--	3.4E+02	1.5E+02	na	--
Barium	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Benzene ^C	0	--	--	na	7.1E+02	--	--	na	7.1E+02	--	--	--	--	--	--	--	--	--	--	na	7.1E+02
Benzidine ^C	0	--	--	na	5.4E-03	--	--	na	5.4E-03	--	--	--	--	--	--	--	--	--	--	na	5.4E-03
Benzo (a) anthracene ^C	0	--	--	na	4.9E-01	--	--	na	4.9E-01	--	--	--	--	--	--	--	--	--	--	na	4.9E-01
Benzo (b) fluoranthene ^C	0	--	--	na	4.9E-01	--	--	na	4.9E-01	--	--	--	--	--	--	--	--	--	--	na	4.9E-01
Benzo (k) fluoranthene ^C	0	--	--	na	4.9E-01	--	--	na	4.9E-01	--	--	--	--	--	--	--	--	--	--	na	4.9E-01
Benzo (a) pyrene ^C	0	--	--	na	4.9E-01	--	--	na	4.9E-01	--	--	--	--	--	--	--	--	--	--	na	4.9E-01
Bis(2-Chloroethyl) Ether	0	--	--	na	1.4E+01	--	--	na	1.4E+01	--	--	--	--	--	--	--	--	--	--	na	1.4E+01
Bis(2-Chloroisopropyl) Ether	0	--	--	na	1.7E+05	--	--	na	1.7E+05	--	--	--	--	--	--	--	--	--	--	na	1.7E+05
Bromoform ^C	0	--	--	na	3.6E+03	--	--	na	3.6E+03	--	--	--	--	--	--	--	--	--	--	na	3.6E+03
Butylbenzylphthalate	0	--	--	na	5.2E+03	--	--	na	5.2E+03	--	--	--	--	--	--	--	--	--	--	na	5.2E+03
Cadmium	0	1.8E+00	6.6E-01	na	--	1.8E+00	6.6E-01	na	--	--	--	--	--	--	--	--	--	1.8E+00	6.6E-01	na	--
Carbon Tetrachloride ^C	0	--	--	na	4.4E+01	--	--	na	4.4E+01	--	--	--	--	--	--	--	--	--	--	na	4.4E+01
Chlordane ^C	0	2.4E+00	4.3E-03	na	2.2E-02	2.4E+00	4.3E-03	na	2.2E-02	--	--	--	--	--	--	--	--	2.4E+00	4.3E-03	na	2.2E-02
Chloride	0	8.6E+05	2.3E+05	na	--	8.6E+05	2.3E+05	na	--	--	--	--	--	--	--	--	--	8.6E+05	2.3E+05	na	--
TRC	0	1.9E+01	1.1E+01	na	--	1.9E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	1.9E+01	1.1E+01	na	--
Chlorobenzene	0	--	--	na	2.1E+04	--	--	na	2.1E+04	--	--	--	--	--	--	--	--	--	--	na	2.1E+04

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Chlorodibromomethane ^C	0	--	--	na	3.4E+02	--	--	na	3.4E+02	--	--	--	--	--	--	--	--	--	--	na	3.4E+02
Chloroform ^C	0	--	--	na	2.9E+04	--	--	na	2.9E+04	--	--	--	--	--	--	--	--	--	--	na	2.9E+04
2-Chloronaphthalene	0	--	--	na	4.3E+03	--	--	na	4.3E+03	--	--	--	--	--	--	--	--	--	--	na	4.3E+03
2-Chlorophenol	0	--	--	na	4.0E+02	--	--	na	4.0E+02	--	--	--	--	--	--	--	--	--	--	na	4.0E+02
Chlorpyrifos	0	8.3E-02	4.1E-02	na	--	8.3E-02	4.1E-02	na	--	--	--	--	--	--	--	--	--	8.3E-02	4.1E-02	na	--
Chromium III	0	3.2E+02	4.2E+01	na	--	3.2E+02	4.2E+01	na	--	--	--	--	--	--	--	--	--	3.2E+02	4.2E+01	na	--
Chromium VI	0	1.6E+01	1.1E+01	na	--	1.6E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	1.6E+01	1.1E+01	na	--
Chromium, Total	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Chrysene ^C	0	--	--	na	4.9E-01	--	--	na	4.9E-01	--	--	--	--	--	--	--	--	--	--	na	4.9E-01
Copper	0	7.0E+00	5.0E+00	na	--	7.0E+00	5.0E+00	na	--	--	--	--	--	--	--	--	--	7.0E+00	5.0E+00	na	--
Cyanide	0	2.2E+01	5.2E+00	na	2.2E+05	2.2E+01	5.2E+00	na	2.2E+05	--	--	--	--	--	--	--	--	2.2E+01	5.2E+00	na	2.2E+05
DDD ^C	0	--	--	na	8.4E-03	--	--	na	8.4E-03	--	--	--	--	--	--	--	--	--	--	na	8.4E-03
DDE ^C	0	--	--	na	5.9E-03	--	--	na	5.9E-03	--	--	--	--	--	--	--	--	--	--	na	5.9E-03
DDT ^C	0	1.1E+00	1.0E-03	na	5.9E-03	1.1E+00	1.0E-03	na	5.9E-03	--	--	--	--	--	--	--	--	1.1E+00	1.0E-03	na	5.9E-03
Demeton	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	--	--	1.0E-01	na	--
Dibenz(a,h)anthracene ^C	0	--	--	na	4.9E-01	--	--	na	4.9E-01	--	--	--	--	--	--	--	--	--	--	na	4.9E-01
Dibutyl phthalate	0	--	--	na	1.2E+04	--	--	na	1.2E+04	--	--	--	--	--	--	--	--	--	--	na	1.2E+04
Dichloromethane (Methylene Chloride) ^C	0	--	--	na	1.6E+04	--	--	na	1.6E+04	--	--	--	--	--	--	--	--	--	--	na	1.6E+04
1,2-Dichlorobenzene	0	--	--	na	1.7E+04	--	--	na	1.7E+04	--	--	--	--	--	--	--	--	--	--	na	1.7E+04
1,3-Dichlorobenzene	0	--	--	na	2.6E+03	--	--	na	2.6E+03	--	--	--	--	--	--	--	--	--	--	na	2.6E+03
1,4-Dichlorobenzene	0	--	--	na	2.6E+03	--	--	na	2.6E+03	--	--	--	--	--	--	--	--	--	--	na	2.6E+03
3,3-Dichlorobenzidine ^C	0	--	--	na	7.7E-01	--	--	na	7.7E-01	--	--	--	--	--	--	--	--	--	--	na	7.7E-01
Dichlorobromomethane ^C	0	--	--	na	4.6E+02	--	--	na	4.6E+02	--	--	--	--	--	--	--	--	--	--	na	4.6E+02
1,2-Dichloroethane ^C	0	--	--	na	9.9E+02	--	--	na	9.9E+02	--	--	--	--	--	--	--	--	--	--	na	9.9E+02
1,1-Dichloroethylene	0	--	--	na	1.7E+04	--	--	na	1.7E+04	--	--	--	--	--	--	--	--	--	--	na	1.7E+04
1,2-trans-dichloroethylene	0	--	--	na	1.4E+05	--	--	na	1.4E+05	--	--	--	--	--	--	--	--	--	--	na	1.4E+05
2,4-Dichlorophenol	0	--	--	na	7.9E+02	--	--	na	7.9E+02	--	--	--	--	--	--	--	--	--	--	na	7.9E+02
2,4-Dichlorophenoxy acetic acid (2,4-D)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
1,2-Dichloropropane ^C	0	--	--	na	3.9E+02	--	--	na	3.9E+02	--	--	--	--	--	--	--	--	--	--	na	3.9E+02
1,3-Dichloropropene	0	--	--	na	1.7E+03	--	--	na	1.7E+03	--	--	--	--	--	--	--	--	--	--	na	1.7E+03
Dieldrin ^C	0	2.4E-01	5.6E-02	na	1.4E-03	2.4E-01	5.6E-02	na	1.4E-03	--	--	--	--	--	--	--	--	2.4E-01	5.6E-02	na	1.4E-03
Diethyl Phthalate	0	--	--	na	1.2E+05	--	--	na	1.2E+05	--	--	--	--	--	--	--	--	--	--	na	1.2E+05
Di-2-Ethylhexyl Phthalate ^C	0	--	--	na	5.9E+01	--	--	na	5.9E+01	--	--	--	--	--	--	--	--	--	--	na	5.9E+01
2,4-Dimethylphenol	0	--	--	na	2.3E+03	--	--	na	2.3E+03	--	--	--	--	--	--	--	--	--	--	na	2.3E+03
Dimethyl Phthalate	0	--	--	na	2.9E+06	--	--	na	2.9E+06	--	--	--	--	--	--	--	--	--	--	na	2.9E+06
Di-n-Butyl Phthalate	0	--	--	na	1.2E+04	--	--	na	1.2E+04	--	--	--	--	--	--	--	--	--	--	na	1.2E+04
2,4 Dinitrophenol	0	--	--	na	1.4E+04	--	--	na	1.4E+04	--	--	--	--	--	--	--	--	--	--	na	1.4E+04
2-Methyl-4,6-Dinitrophenol	0	--	--	na	7.65E+02	--	--	na	7.7E+02	--	--	--	--	--	--	--	--	--	--	na	7.7E+02
2,4-Dinitrotoluene ^C	0	--	--	na	9.1E+01	--	--	na	9.1E+01	--	--	--	--	--	--	--	--	--	--	na	9.1E+01
Dioxin (2,3,7,8- tetrachlorodibenzo-p- dioxin) (ppq)	0	--	--	na	1.2E-06	--	--	na	na	--	--	--	--	--	--	--	--	--	--	na	na
1,2-Diphenylhydrazine ^C	0	--	--	na	5.4E+00	--	--	na	5.4E+00	--	--	--	--	--	--	--	--	--	--	na	5.4E+00
Alpha-Endosulfan	0	2.2E-01	5.6E-02	na	2.4E+02	2.2E-01	5.6E-02	na	2.4E+02	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	na	2.4E+02
Beta-Endosulfan	0	2.2E-01	5.6E-02	na	2.4E+02	2.2E-01	5.6E-02	na	2.4E+02	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	na	2.4E+02
Endosulfan Sulfate	0	--	--	na	2.4E+02	--	--	na	2.4E+02	--	--	--	--	--	--	--	--	--	--	na	2.4E+02
Endrin	0	8.6E-02	3.6E-02	na	8.1E-01	8.6E-02	3.6E-02	na	8.1E-01	--	--	--	--	--	--	--	--	8.6E-02	3.6E-02	na	8.1E-01
Endrin Aldehyde	0	--	--	na	8.1E-01	--	--	na	8.1E-01	--	--	--	--	--	--	--	--	--	--	na	8.1E-01

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Ethylbenzene	0	--	--	na	2.9E+04	--	--	na	2.9E+04	--	--	--	--	--	--	--	--	--	--	na	2.9E+04
Fluoranthene	0	--	--	na	3.7E+02	--	--	na	3.7E+02	--	--	--	--	--	--	--	--	--	--	na	3.7E+02
Fluorene	0	--	--	na	1.4E+04	--	--	na	1.4E+04	--	--	--	--	--	--	--	--	--	--	na	1.4E+04
Foaming Agents	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Guthion	0	--	1.0E-02	na	--	--	1.0E-02	na	--	--	--	--	--	--	--	--	--	--	1.0E-02	na	--
Heptachlor ^C	0	5.2E-01	3.8E-03	na	2.1E-03	5.2E-01	3.8E-03	na	2.1E-03	--	--	--	--	--	--	--	--	5.2E-01	3.8E-03	na	2.1E-03
Heptachlor Epoxide ^C	0	5.2E-01	3.8E-03	na	1.1E-03	5.2E-01	3.8E-03	na	1.1E-03	--	--	--	--	--	--	--	--	5.2E-01	3.8E-03	na	1.1E-03
Hexachlorobenzene ^C	0	--	--	na	7.7E-03	--	--	na	7.7E-03	--	--	--	--	--	--	--	--	--	--	na	7.7E-03
Hexachlorobutadiene ^C	0	--	--	na	5.0E+02	--	--	na	5.0E+02	--	--	--	--	--	--	--	--	--	--	na	5.0E+02
Hexachlorocyclohexane																					
Alpha-BHC ^C	0	--	--	na	1.3E-01	--	--	na	1.3E-01	--	--	--	--	--	--	--	--	--	--	na	1.3E-01
Hexachlorocyclohexane																					
Beta-BHC ^C	0	--	--	na	4.6E-01	--	--	na	4.6E-01	--	--	--	--	--	--	--	--	--	--	na	4.6E-01
Hexachlorocyclohexane																					
Gamma-BHC ^C (Lindane)	0	9.5E-01	na	na	6.3E-01	9.5E-01	--	na	6.3E-01	--	--	--	--	--	--	--	--	9.5E-01	--	na	6.3E-01
Hexachlorocyclopentadiene	0	--	--	na	1.7E+04	--	--	na	1.7E+04	--	--	--	--	--	--	--	--	--	--	na	1.7E+04
Hexachloroethane ^C	0	--	--	na	8.9E+01	--	--	na	8.9E+01	--	--	--	--	--	--	--	--	--	--	na	8.9E+01
Hydrogen Sulfide	0	--	2.0E+00	na	--	--	2.0E+00	na	--	--	--	--	--	--	--	--	--	--	2.0E+00	na	--
Indeno (1,2,3-cd) pyrene ^C	0	--	--	na	4.9E-01	--	--	na	4.9E-01	--	--	--	--	--	--	--	--	--	--	na	4.9E-01
Iron	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Isophorone ^C	0	--	--	na	2.6E+04	--	--	na	2.6E+04	--	--	--	--	--	--	--	--	--	--	na	2.6E+04
Kepone	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Lead	0	4.9E+01	5.6E+00	na	--	4.9E+01	5.6E+00	na	--	--	--	--	--	--	--	--	--	4.9E+01	5.6E+00	na	--
Malathion	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	--	--	1.0E-01	na	--
Manganese	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Mercury	0	1.4E+00	7.7E-01	na	5.1E-02	1.4E+00	7.7E-01	na	5.1E-02	--	--	--	--	--	--	--	--	1.4E+00	7.7E-01	na	5.1E-02
Methyl Bromide	0	--	--	na	4.0E+03	--	--	na	4.0E+03	--	--	--	--	--	--	--	--	--	--	na	4.0E+03
Methoxychlor	0	--	3.0E-02	na	--	--	3.0E-02	na	--	--	--	--	--	--	--	--	--	--	3.0E-02	na	--
Mirex	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Monochlorobenzene	0	--	--	na	2.1E+04	--	--	na	2.1E+04	--	--	--	--	--	--	--	--	--	--	na	2.1E+04
Nickel	0	1.0E+02	1.1E+01	na	4.6E+03	1.0E+02	1.1E+01	na	4.6E+03	--	--	--	--	--	--	--	--	1.0E+02	1.1E+01	na	4.6E+03
Nitrate (as N)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Nitrobenzene	0	--	--	na	1.9E+03	--	--	na	1.9E+03	--	--	--	--	--	--	--	--	--	--	na	1.9E+03
N-Nitrosodimethylamine ^C	0	--	--	na	8.1E+01	--	--	na	8.1E+01	--	--	--	--	--	--	--	--	--	--	na	8.1E+01
N-Nitrosodiphenylamine ^C	0	--	--	na	1.6E+02	--	--	na	1.6E+02	--	--	--	--	--	--	--	--	--	--	na	1.6E+02
N-Nitrosodi-n-propylamine ^C	0	--	--	na	1.4E+01	--	--	na	1.4E+01	--	--	--	--	--	--	--	--	--	--	na	1.4E+01
Parathion	0	6.5E-02	1.3E-02	na	--	6.5E-02	1.3E-02	na	--	--	--	--	--	--	--	--	--	6.5E-02	1.3E-02	na	--
PCB-1016	0	--	1.4E-02	na	--	--	1.4E-02	na	--	--	--	--	--	--	--	--	--	--	1.4E-02	na	--
PCB-1221	0	--	1.4E-02	na	--	--	1.4E-02	na	--	--	--	--	--	--	--	--	--	--	1.4E-02	na	--
PCB-1232	0	--	1.4E-02	na	--	--	1.4E-02	na	--	--	--	--	--	--	--	--	--	--	1.4E-02	na	--
PCB-1242	0	--	1.4E-02	na	--	--	1.4E-02	na	--	--	--	--	--	--	--	--	--	--	1.4E-02	na	--
PCB-1248	0	--	1.4E-02	na	--	--	1.4E-02	na	--	--	--	--	--	--	--	--	--	--	1.4E-02	na	--
PCB-1254	0	--	1.4E-02	na	--	--	1.4E-02	na	--	--	--	--	--	--	--	--	--	--	1.4E-02	na	--
PCB-1260	0	--	1.4E-02	na	--	--	1.4E-02	na	--	--	--	--	--	--	--	--	--	--	1.4E-02	na	--
PCB Total ^C	0	--	--	na	1.7E-03	--	--	na	1.7E-03	--	--	--	--	--	--	--	--	--	--	na	1.7E-03

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Pentachlorophenol ^C	0	7.7E-03	5.9E-03	na	8.2E+01	7.7E-03	5.9E-03	na	8.2E+01	--	--	--	--	--	--	--	--	7.7E-03	5.9E-03	na	8.2E+01
Phenol	0	--	--	na	4.6E+06	--	--	na	4.6E+06	--	--	--	--	--	--	--	--	--	--	na	4.6E+06
Pyrene	0	--	--	na	1.1E+04	--	--	na	1.1E+04	--	--	--	--	--	--	--	--	--	--	na	1.1E+04
Radionuclides (pCi/l except Beta/Photon)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Gross Alpha Activity Beta and Photon Activity (mrem/yr)	0	--	--	na	1.5E+01	--	--	na	1.5E+01	--	--	--	--	--	--	--	--	--	--	na	1.5E+01
Strontium-90	0	--	--	na	4.0E+00	--	--	na	4.0E+00	--	--	--	--	--	--	--	--	--	--	na	4.0E+00
Tritium	0	--	--	na	8.0E+00	--	--	na	8.0E+00	--	--	--	--	--	--	--	--	--	--	na	8.0E+00
Selenium	0	--	--	na	2.0E+04	--	--	na	2.0E+04	--	--	--	--	--	--	--	--	--	--	na	2.0E+04
Silver	0	2.0E+01	5.0E+00	na	1.1E+04	2.0E+01	5.0E+00	na	1.1E+04	--	--	--	--	--	--	--	--	2.0E+01	5.0E+00	na	1.1E+04
Sulfate	0	1.0E+00	--	na	--	1.0E+00	--	na	--	--	--	--	--	--	--	--	--	1.0E+00	--	na	--
1,1,2,2-Tetrachloroethane ^C	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Tetrachloroethylene ^C	0	--	--	na	1.1E+02	--	--	na	1.1E+02	--	--	--	--	--	--	--	--	--	--	na	1.1E+02
Thallium	0	--	--	na	8.9E+01	--	--	na	8.9E+01	--	--	--	--	--	--	--	--	--	--	na	8.9E+01
Toluene	0	--	--	na	6.3E+00	--	--	na	6.3E+00	--	--	--	--	--	--	--	--	--	--	na	6.3E+00
Total dissolved solids	0	--	--	na	2.0E+05	--	--	na	2.0E+05	--	--	--	--	--	--	--	--	--	--	na	2.0E+05
Toxaphene ^C	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Tributyltin	0	7.3E-01	2.0E-04	na	--	7.3E-01	2.0E-04	na	7.5E-03	--	--	--	--	--	--	--	--	7.3E-01	2.0E-04	na	7.5E-03
1,2,4-Trichlorobenzene	0	4.6E-01	6.3E-02	na	--	4.6E-01	6.3E-02	na	--	--	--	--	--	--	--	--	--	4.6E-01	6.3E-02	na	--
1,1,2-Trichloroethane ^C	0	--	--	na	9.4E+02	--	--	na	9.4E+02	--	--	--	--	--	--	--	--	--	--	na	9.4E+02
Trichloroethylene ^C	0	--	--	na	4.2E+02	--	--	na	4.2E+02	--	--	--	--	--	--	--	--	--	--	na	4.2E+02
2,4,6-Trichlorophenol ^C	0	--	--	na	8.1E+02	--	--	na	8.1E+02	--	--	--	--	--	--	--	--	--	--	na	8.1E+02
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	0	--	--	na	6.5E+01	--	--	na	6.5E+01	--	--	--	--	--	--	--	--	--	--	na	6.5E+01
Vinyl Chloride ^C	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Zinc	0	--	--	na	6.1E+01	--	--	na	6.1E+01	--	--	--	--	--	--	--	--	--	--	na	6.1E+01
	0	6.5E+01	6.6E+01	na	6.9E+04	6.5E+01	6.6E+01	na	6.9E+04	--	--	--	--	--	--	--	--	6.5E+01	6.6E+01	na	6.9E+04

Notes:

- All concentrations expressed as micrograms/liter (ug/l), unless noted otherwise
- Discharge flow is highest monthly average or Form 2C maximum for Industries and design flow for Municipals
- Metals measured as Dissolved, unless specified otherwise
- "C" indicates a carcinogenic parameter
- Regular WLAs are mass balances (minus background concentration) using the % of stream flow entered above under Mixing Information.
Antidegradation WLAs are based upon a complete mix.
- Antideg. Baseline = (0.25(WQC - background conc.) + background conc.) for acute and chronic
= (0.1(WQC - background conc.) + background conc.) for human health
- WLAs established at the following stream flows: 1Q10 for Acute, 30Q10 for Chronic Ammonia, 7Q10 for Other Chronic, 30Q5 for Non-carcinogens, Harmonic Mean for Carcinogens, and Annual Average for Dioxin. Mixing ratios may be substituted for stream flows where appropriate.

Metal	Target Value (SSTV)
Antimony	4.3E+03
Arsenic	9.0E+01
Barium	na
Cadmium	3.9E-01
Chromium III	2.5E+01
Chromium VI	6.4E+00
Copper	2.8E+00
Iron	na
Lead	3.4E+00
Manganese	na
Mercury	5.1E-02
Nickel	6.8E+00
Selenium	3.0E+00
Silver	4.2E-01
Zinc	2.6E+01

Note: do not use QL's lower than the minimum QL's provided in agency guidance

DMR QA/QC

Permit #:VA0087891	Facility:Evergreen Country Club
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Receive Date	Parameter	QTY AVG	Lim Avg	QTY MAX	Lim Max	CONC MIN	Lim Min	CONC AVG	Lim Avg	CONC MAX	Lim Max
11-Feb-2003	CBOD5	0.05	0.28	0.09	0.43	NULL	*****	10	10	9	15
11-Mar-2003	CBOD5	0.12	0.71	0.20	NL	NULL	*****	15	25	18	NL
11-Apr-2003	CBOD5	0.15	0.71	0.27	NL	NULL	*****	12	25	18	NL
12-May-2003	CBOD5	0.13	0.28	0.30	0.43	NULL	*****	8	10	15	15
11-Jun-2003	CBOD5	0.09	0.71	0.13	NL	NULL	*****	5	25.0	7	NL
11-Jul-2003	CBOD5	0.18	0.71	0.20	NL	NULL	*****	8.8	25.0	14.0	NL
11-Aug-2003	CBOD5	0.25	0.71	0.4	NL	NULL	*****	19.0	25.0	22.0	NL
11-Sep-2003	CBOD5	0.39	0.71	0.57	NL	NULL	*****	33.3	25.0	41.0	NL
14-Oct-2003	CBOD5	0.15	0.71	0.17	NL	NULL	*****	9.8	25.0	16.0	NL
12-Nov-2003	CBOD5	0.09	0.71	0.14	NL	NULL	*****	7.8	25.0	10.0	NL
11-Dec-2003	CBOD5	0.18	0.71	0.33	NL	NULL	*****	7.8	25.0	12.0	NL
12-Jan-2004	CBOD5	0.11	0.71	0.29	NL	NULL	*****	6.8	25.0	15.0	NL
12-Feb-2004	CBOD5	0.12	0.71	0.15	NL	NULL	*****	19.5	25.0	36.0	NL
10-Mar-2004	CBOD5	0.13	0.71	0.18	NL	NULL	*****	13.0	25.0	24.0	NL
12-Apr-2004	CBOD5	0.20	0.71	0.54	NL	NULL	*****	17.4	25.0	28.0	NL
11-May-2004	CBOD5	0.07	0.71	0.07	NL	NULL	*****	5.8	25.0	5.0	NL
10-Jun-2004	CBOD5	0.14	0.71	0.23	NL	NULL	*****	18.3	25.0	31.0	NL
09-Jul-2004	CBOD5	0.14	0.71	0.29	NL	NULL	*****	17.2	25.0	27.0	NL
11-Aug-2004	CBOD5	0.10	0.71	0.16	NL	NULL	*****	12.3	25.0	15.0	NL
13-Sep-2004	CBOD5	<QL	0.71	0.10	NL	NULL	*****	<QL	25.0	7.0	NL
12-Oct-2004	CBOD5	<QL	0.71	0.04	NL	NULL	*****	<QL	25.0	5.0	NL
09-Nov-2004	CBOD5	<QL	0.71	0.07	NL	NULL	*****	<QL	25.0	10.0	NL
10-Dec-2004	CBOD5	0.06	0.71	0.12	NL	NULL	*****	10.3	25.0	19.0	NL
11-Jan-2005	CBOD5	<QL	0.71	0.07	NL	NULL	*****	<QL	25.0	12.0	NL
10-Feb-2005	CBOD5	0.10	0.71	0.25	NL	NULL	*****	12.0	25.0	23.0	NL
11-Mar-2005	CBOD5	0.08	0.28	0.14	0.43	NULL	*****	13.5	10.0	16.0	15.0
11-Apr-2005	CBOD5	0.07	0.28	0.14	0.43	NULL	*****	7.6	10.0	13.0	15.0

11-May-2005	CBOD5	0.18	0.71	0.52	NL	NULL	*****	15.8	25.0	37.0	NL
13-Jun-2005	CBOD5	<QL	0.71	<QL	NL	NULL	*****	<QL	25.0	<QL	NL
11-Jul-2005	CBOD5	0.04	0.71	0.10	NL	NULL	*****	5.4	25.0	13.0	NL
11-Aug-2005	CBOD5	0.35	0.71	0.67	NL	NULL	*****	20.5	25.0	23.0	NL
12-Sep-2005	CBOD5	0.10	0.71	0.21	NL	NULL	*****	9.0	25.0	15.0	NL
11-Oct-2005	CBOD5	0.05	0.71	0.09	NL	NULL	*****	7.3	25.0	10.0	NL
10-Nov-2005	CBOD5	<QL	0.71	<QL	NL	NULL	*****	<QL	25.0	<QL	NL
09-Dec-2005	CBOD5	0.05	0.71	0.13	NL	NULL	*****	4.4	25.0	12.0	NL
10-Jan-2006	CBOD5	0.01	0.71	0.03	NL	NULL	*****	1.8	25.0	7.0	NL
13-Feb-2006	CBOD5	<QL	0.71	<QL	NL	NULL	*****	<QL	25.0	<QL	NL
10-Mar-2006	CBOD5	<QL	0.71	<QL	NL	NULL	*****	<QL	25.0	<QL	NL
11-Apr-2006	CBOD5	0.04	0.71	0.13	NL	NULL	*****	6.0	25.0	17.0	NL
11-May-2006	CBOD5	0.01	0.71	0.04	NL	NULL	*****	1.5	25.0	6.0	NL
09-Jun-2006	CBOD5	0.04	0.71	0.07	NL	NULL	*****	3.0	25.0	6.0	NL
11-Jul-2006	CBOD5	0.04	0.71	0.08	NL	NULL	*****	4.8	25.0	6.0	NL
11-Aug-2006	CBOD5	0.18	0.71	0.35	NL	NULL	*****	10.5	25.0	16.0	NL
11-Sep-2006	CBOD5	0.12	0.71	0.17	NL	NULL	*****	12.0	25.0	13.0	NL
11-Oct-2006	CBOD5	0.20	0.71	0.32	NL	NULL	*****	15.3	25.0	23.0	NL
13-Nov-2006	CBOD5	0.08	0.71	0.11	NL	NULL	*****	6.3	25.0	8.0	NL
11-Dec-2006	CBOD5	0.20	0.71	0.51	NL	NULL	*****	5.8	25.0	9.0	NL
11-Jan-2007	CBOD5	0.11	0.71	0.26	NL	NULL	*****	12.5	25.0	24.0	NL
12-Feb-2007	CBOD5	0.50	0.71	0.92	NL	NULL	*****	21.0	25.0	31.0	NL
12-Mar-2007	CBOD5	0.30	0.71	0.62	NL	NULL	*****	51.2	25.0	102.0	NL
10-Apr-2007	CBOD5	0.18	0.71	0.42	NL	NULL	*****	24.3	25.0	39.0	NL
09-May-2007	CBOD5	0.06	0.28	0.11	0.43	NULL	*****	8.0	10.0	10.0	15.0
11-Jun-2007	CBOD5	0.04	0.71	0.04	NL	NULL	*****	6.2	25.0	6.0	NL
11-Jul-2007	CBOD5	0.09	0.71	0.18	NL	NULL	*****	14.8	25.0	30.0	NL
13-Aug-2007	CBOD5	0.41	0.71	0.19	NL	NULL	*****	39.8	25.0	54.0	NL
10-Sep-2007	CBOD5	0.24	0.71	0.24	NL	NULL	*****	11.0	25.0	11.0	NL
11-Oct-2007	CBOD5	NULL	0.28	NULL	0.43	NULL	*****	NULL	10.0	NULL	15.0
13-Nov-2007	CBOD5	0.19	0.28	0.19	0.43	NULL	*****	11.0	10.0	11.0	15.0
11-Dec-2007	CBOD5	0.11	0.28	0.11	0.43	NULL	*****	8.0	10.0	8.0	15.0

11-Jan-2008	CBOD5	0.08	0.28	0.08	0.43	NULL	*****	5.0	10.0	5.0	15.0
11-Feb-2008	CBOD5	0.06	0.28	0.06	0.43	NULL	*****	5.0	10.0	5.0	15.0
11-Feb-2003	DO	NULL	*****	NULL	*****	9.4	6.5	NULL	*****	NULL	*****
11-Mar-2003	DO	NULL	*****	NULL	*****	10.4	6.5	NULL	*****	NULL	*****
11-Apr-2003	DO	NULL	*****	NULL	*****	8.2	6.5	NULL	*****	NULL	*****
12-May-2003	DO	NULL	*****	NULL	*****	8.1	6.5	NULL	*****	NULL	*****
11-Jun-2003	DO	NULL	*****	NULL	*****	7.3	6.5	NULL	*****	NULL	*****
11-Jul-2003	DO	NULL	*****	NULL	*****	7.0	6.5	NULL	*****	NULL	*****
11-Aug-2003	DO	NULL	*****	NULL	*****	6.8	6.5	NULL	*****	NULL	*****
11-Sep-2003	DO	NULL	*****	NULL	*****	6.8	6.5	NULL	*****	NULL	*****
14-Oct-2003	DO	NULL	*****	NULL	*****	6.0	6.5	NULL	*****	NULL	*****
12-Nov-2003	DO	NULL	*****	NULL	*****	3.9	6.5	NULL	*****	NULL	*****
11-Dec-2003	DO	NULL	*****	NULL	*****	6.5	6.5	NULL	*****	NULL	*****
12-Jan-2004	DO	NULL	*****	NULL	*****	7.7	6.5	NULL	*****	NULL	*****
12-Feb-2004	DO	NULL	*****	NULL	*****	8.5	6.5	NULL	*****	NULL	*****
10-Mar-2004	DO	NULL	*****	NULL	*****	9.8	6.5	NULL	*****	NULL	*****
12-Apr-2004	DO	NULL	*****	NULL	*****	9.8	6.5	NULL	*****	NULL	*****
11-May-2004	DO	NULL	*****	NULL	*****	8.2	6.5	NULL	*****	NULL	*****
10-Jun-2004	DO	NULL	*****	NULL	*****	7.6	6.5	NULL	*****	NULL	*****
09-Jul-2004	DO	NULL	*****	NULL	*****	7.0	6.5	NULL	*****	NULL	*****
11-Aug-2004	DO	NULL	*****	NULL	*****	7.1	6.5	NULL	*****	NULL	*****
13-Sep-2004	DO	NULL	*****	NULL	*****	7.2	6.5	NULL	*****	NULL	*****
12-Oct-2004	DO	NULL	*****	NULL	*****	7.4	6.5	NULL	*****	NULL	*****
09-Nov-2004	DO	NULL	*****	NULL	*****	8.0	6.5	NULL	*****	NULL	*****
10-Dec-2004	DO	NULL	*****	NULL	*****	8.5	6.5	NULL	*****	NULL	*****
11-Jan-2005	DO	NULL	*****	NULL	*****	9.0	6.5	NULL	*****	NULL	*****
10-Feb-2005	DO	NULL	*****	NULL	*****	9.8	6.5	NULL	*****	NULL	*****
11-Mar-2005	DO	NULL	*****	NULL	*****	10.0	6.5	NULL	*****	NULL	*****
11-Apr-2005	DO	NULL	*****	NULL	*****	4.0	6.5	NULL	*****	NULL	*****
11-May-2005	DO	NULL	*****	NULL	*****	7.2	6.5	NULL	*****	NULL	*****
13-Jun-2005	DO	NULL	*****	NULL	*****	7.4	6.5	NULL	*****	NULL	*****
11-Jul-2005	DO	NULL	*****	NULL	*****	6.8	6.5	NULL	*****	NULL	*****

11-Aug-2005	DO	NULL	*****	NULL	*****	5.5	6.5	NULL	*****	NULL	*****
12-Sep-2005	DO	NULL	*****	NULL	*****	6.1	6.5	NULL	*****	NULL	*****
11-Oct-2005	DO	NULL	*****	NULL	*****	6.6	6.5	NULL	*****	NULL	*****
10-Nov-2005	DO	NULL	*****	NULL	*****	6.6	6.5	NULL	*****	NULL	*****
09-Dec-2005	DO	NULL	*****	NULL	*****	9.4	6.5	NULL	*****	NULL	*****
10-Jan-2006	DO	NULL	*****	NULL	*****	9.2	6.5	NULL	*****	NULL	*****
13-Feb-2006	DO	NULL	*****	NULL	*****	10.6	6.5	NULL	*****	NULL	*****
10-Mar-2006	DO	NULL	*****	NULL	*****	10.4	6.5	NULL	*****	NULL	*****
11-Apr-2006	DO	NULL	*****	NULL	*****	8.5	6.5	NULL	*****	NULL	*****
11-May-2006	DO	NULL	*****	NULL	*****	7.5	6.5	NULL	*****	NULL	*****
09-Jun-2006	DO	NULL	*****	NULL	*****	6.1	6.5	NULL	*****	NULL	*****
11-Jul-2006	DO	NULL	*****	NULL	*****	6.7	6.5	NULL	*****	NULL	*****
11-Aug-2006	DO	NULL	*****	NULL	*****	6.0	6.5	NULL	*****	NULL	*****
11-Sep-2006	DO	NULL	*****	NULL	*****	6.2	6.5	NULL	*****	NULL	*****
11-Oct-2006	DO	NULL	*****	NULL	*****	6.2	6.5	NULL	*****	NULL	*****
13-Nov-2006	DO	NULL	*****	NULL	*****	7.6	6.5	NULL	*****	NULL	*****
11-Dec-2006	DO	NULL	*****	NULL	*****	8.0	6.5	NULL	*****	NULL	*****
11-Jan-2007	DO	NULL	*****	NULL	*****	8.2	6.5	NULL	*****	NULL	*****
12-Feb-2007	DO	NULL	*****	NULL	*****	7.6	6.5	NULL	*****	NULL	*****
12-Mar-2007	DO	NULL	*****	NULL	*****	9.5	6.5	NULL	*****	NULL	*****
10-Apr-2007	DO	NULL	*****	NULL	*****	6.9	6.5	NULL	*****	NULL	*****
09-May-2007	DO	NULL	*****	NULL	*****	7.5	6.5	NULL	*****	NULL	*****
11-Jun-2007	DO	NULL	*****	NULL	*****	7.6	6.5	NULL	*****	NULL	*****
11-Jul-2007	DO	NULL	*****	NULL	*****	7.0	6.5	NULL	*****	NULL	*****
13-Aug-2007	DO	NULL	*****	NULL	*****	6.8	6.5	NULL	*****	NULL	*****
10-Sep-2007	DO	NULL	*****	NULL	*****	6.7	6.5	NULL	*****	NULL	*****
11-Oct-2007	DO	NULL	*****	NULL	*****	NULL	6.5	NULL	*****	NULL	*****
13-Nov-2007	DO	NULL	*****	NULL	*****	6.6	6.5	NULL	*****	NULL	*****
11-Dec-2007	DO	NULL	*****	NULL	*****	7.0	6.5	NULL	*****	NULL	*****
11-Jan-2008	DO	NULL	*****	NULL	*****	7.1	6.5	NULL	*****	NULL	*****
11-Feb-2008	DO	NULL	*****	NULL	*****	7.4	6.5	NULL	*****	NULL	*****
10-Sep-2007	E.COLI	NULL	*****	NULL	*****	NULL	*****	NULL	*****	500	235

11-Oct-2007	E.COLI	NULL	*****	NULL	*****	NULL	*****	NULL	*****	NULL	235
13-Nov-2007	E.COLI	NULL	*****	NULL	*****	NULL	*****	NULL	*****	1600	235
11-Dec-2007	E.COLI	NULL	*****	NULL	*****	NULL	*****	NULL	*****	900	235
11-Jan-2008	E.COLI	NULL	*****	NULL	*****	NULL	*****	NULL	*****	2	235
11-Feb-2008	E.COLI	NULL	*****	NULL	*****	NULL	*****	NULL	*****	4	235
11-Feb-2003	FLOW	0.0028	0.0075	0.0111	NL	NULL	*****	NULL	*****	NULL	*****
11-Mar-2003	FLOW	0.0049	0.0075	0.0158	NL	NULL	*****	NULL	*****	NULL	*****
11-Apr-2003	FLOW	0.0052	0.0075	0.0122	NL	NULL	*****	NULL	*****	NULL	*****
12-May-2003	FLOW	0.0042	0.0075	0.0073	NL	NULL	*****	NULL	*****	NULL	*****
11-Jun-2003	FLOW	0.0063	0.0075	0.0217	NL	NULL	*****	NULL	*****	NULL	*****
11-Jul-2003	FLOW	0.0056	0.0075	0.0217	NL	NULL	*****	NULL	*****	NULL	*****
11-Aug-2003	FLOW	0.0036	0.0075	0.0073	NL	NULL	*****	NULL	*****	NULL	*****
11-Sep-2003	FLOW	0.0029	0.0075	0.0051	NL	NULL	*****	NULL	*****	NULL	*****
14-Oct-2003	FLOW	0.0042	0.0075	0.0122	NL	NULL	*****	NULL	*****	NULL	*****
12-Nov-2003	FLOW	0.0046	0.0075	0.0111	NL	NULL	*****	NULL	*****	NULL	*****
11-Dec-2003	FLOW	0.0061	0.0075	0.0122	NL	NULL	*****	NULL	*****	NULL	*****
12-Jan-2004	FLOW	0.0058	0.0075	0.0158	NL	NULL	*****	NULL	*****	NULL	*****
12-Feb-2004	FLOW	0.0031	0.0075	0.0111	NL	NULL	*****	NULL	*****	NULL	*****
10-Mar-2004	FLOW	0.0050	0.0075	0.0111	NL	NULL	*****	NULL	*****	NULL	*****
12-Apr-2004	FLOW	0.0028	0.0075	0.0051	NL	NULL	*****	NULL	*****	NULL	*****
11-May-2004	FLOW	0.0042	0.0075	0.0111	NL	NULL	*****	NULL	*****	NULL	*****
10-Jun-2004	FLOW	0.0034	0.0075	0.0111	NL	NULL	*****	NULL	*****	NULL	*****
09-Jul-2004	FLOW	0.0031	0.0075	0.0073	NL	NULL	*****	NULL	*****	NULL	*****
11-Aug-2004	FLOW	0.0029	0.0075	0.0073	NL	NULL	*****	NULL	*****	NULL	*****
13-Sep-2004	FLOW	0.0028	0.0075	0.0111	NL	NULL	*****	NULL	*****	NULL	*****
12-Oct-2004	FLOW	0.0032	0.0075	0.0145	NL	NULL	*****	NULL	*****	NULL	*****
09-Nov-2004	FLOW	0.0028	0.0075	0.0051	NL	NULL	*****	NULL	*****	NULL	*****
10-Dec-2004	FLOW	0.0031	0.0075	0.0111	NL	NULL	*****	NULL	*****	NULL	*****
11-Jan-2005	FLOW	0.0027	0.0075	0.0091	NL	NULL	*****	NULL	*****	NULL	*****
10-Feb-2005	FLOW	0.0025	0.0075	0.0073	NL	NULL	*****	NULL	*****	NULL	*****
11-Mar-2005	FLOW	0.0029	0.0075	0.0073	NL	NULL	*****	NULL	*****	NULL	*****
11-Apr-2005	FLOW	0.0041	0.0075	0.0111	NL	NULL	*****	NULL	*****	NULL	*****

11-May-2005	FLOW	0.0053	0.0075	0.0217	NL	NULL	*****	NULL	*****	NULL	*****
13-Jun-2005	FLOW	0.0041	0.0075	0.0111	NL	NULL	*****	NULL	*****	NULL	*****
11-Jul-2005	FLOW	0.0029	0.0075	0.0051	NL	NULL	*****	NULL	*****	NULL	*****
11-Aug-2005	FLOW	0.0073	0.0075	0.0753	NL	NULL	*****	NULL	*****	NULL	*****
12-Sep-2005	FLOW	0.0027	0.0075	0.0091	NL	NULL	*****	NULL	*****	NULL	*****
11-Oct-2005	FLOW	0.0021	0.0075	0.0037	NL	NULL	*****	NULL	*****	NULL	*****
10-Nov-2005	FLOW	0.0037	0.0075	0.0271	NL	NULL	*****	NULL	*****	NULL	*****
09-Dec-2005	FLOW	0.0020	0.0075	0.0051	NL	NULL	*****	NULL	*****	NULL	*****
10-Jan-2006	FLOW	0.0037	0.0075	0.0186	NL	NULL	*****	NULL	*****	NULL	*****
13-Feb-2006	FLOW	0.0029	0.0075	0.0073	NL	NULL	*****	NULL	*****	NULL	*****
10-Mar-2006	FLOW	0.0023	0.0075	0.0051	NL	NULL	*****	NULL	*****	NULL	*****
11-Apr-2006	FLOW	0.0019	0.0075	0.0037	NL	NULL	*****	NULL	*****	NULL	*****
11-May-2006	FLOW	0.0027	0.0075	0.0073	NL	NULL	*****	NULL	*****	NULL	*****
09-Jun-2006	FLOW	0.0031	0.0075	0.0063	NL	NULL	*****	NULL	*****	NULL	*****
11-Jul-2006	FLOW	0.0035	0.0075	0.0181	NL	NULL	*****	NULL	*****	NULL	*****
11-Aug-2006	FLOW	0.0042	0.0075	0.0111	NL	NULL	*****	NULL	*****	NULL	*****
11-Sep-2006	FLOW	0.0026	0.0075	0.0051	NL	NULL	*****	NULL	*****	NULL	*****
11-Oct-2006	FLOW	0.0040	0.0075	0.0186	NL	NULL	*****	NULL	*****	NULL	*****
13-Nov-2006	FLOW	0.0042	0.0075	0.0111	NL	NULL	*****	NULL	*****	NULL	*****
11-Dec-2006	FLOW	0.0061	0.0075	0.0271	NL	NULL	*****	NULL	*****	NULL	*****
11-Jan-2007	FLOW	0.0028	0.0075	0.0111	NL	NULL	*****	NULL	*****	NULL	*****
12-Feb-2007	FLOW	0.0038	0.0075	0.0111	NL	NULL	*****	NULL	*****	NULL	*****
12-Mar-2007	FLOW	0.0020	0.0075	0.0057	NL	NULL	*****	NULL	*****	NULL	*****
10-Apr-2007	FLOW	0.0022	0.0075	0.0073	NL	NULL	*****	NULL	*****	NULL	*****
09-May-2007	FLOW	0.0027	0.0075	0.0158	NL	NULL	*****	NULL	*****	NULL	*****
11-Jun-2007	FLOW	0.0017	0.0075	0.0029	NL	NULL	*****	NULL	*****	NULL	*****
11-Jul-2007	FLOW	0.0019	0.0075	0.0037	NL	NULL	*****	NULL	*****	NULL	*****
13-Aug-2007	FLOW	0.0021	0.0075	0.0059	NL	NULL	*****	NULL	*****	NULL	*****
10-Sep-2007	FLOW	0.0055	0.0075	0.0082	NL	NULL	*****	NULL	*****	NULL	*****
11-Oct-2007	FLOW	NULL	0.0075	NULL	NL	NULL	*****	NULL	*****	NULL	*****
13-Nov-2007	FLOW	0.0064	0.0075	0.0109	NL	NULL	*****	NULL	*****	NULL	*****
11-Dec-2007	FLOW	0.0037	0.0075	0.0049	NL	NULL	*****	NULL	*****	NULL	*****

11-Jan-2008	FLOW	0.0046	0.0075	0.0103	NL	NULL	*****	NULL	*****	NULL	*****
11-Feb-2008	FLOW	0.0035	0.0075	0.0041	NL	NULL	*****	NULL	*****	NULL	*****
11-Feb-2003	PH	NULL	*****	NULL	*****	7.5	6.0	NULL	*****	7.5	9.0
11-Mar-2003	PH	NULL	*****	NULL	*****	7.5	6.0	NULL	*****	7.8	9.0
11-Apr-2003	PH	NULL	*****	NULL	*****	7.5	6.0	NULL	*****	7.5	9.0
12-May-2003	PH	NULL	*****	NULL	*****	7.5	6.0	NULL	*****	7.5	9.0
11-Jun-2003	PH	NULL	*****	NULL	*****	7.5	6.0	NULL	*****	7.5	9.0
11-Jul-2003	PH	NULL	*****	NULL	*****	7.5	6.0	NULL	*****	7.5	9.0
11-Aug-2003	PH	NULL	*****	NULL	*****	7.0	6.0	NULL	*****	7.5	9.0
11-Sep-2003	PH	NULL	*****	NULL	*****	7.5	6.0	NULL	*****	7.5	9.0
14-Oct-2003	PH	NULL	*****	NULL	*****	7.5	6.0	NULL	*****	7.5	9.0
12-Nov-2003	PH	NULL	*****	NULL	*****	7.5	6.0	NULL	*****	7.5	9.0
11-Dec-2003	PH	NULL	*****	NULL	*****	7.5	6.0	NULL	*****	7.5	9.0
12-Jan-2004	PH	NULL	*****	NULL	*****	7.5	6.0	NULL	*****	7.5	9.0
12-Feb-2004	PH	NULL	*****	NULL	*****	7.0	6.0	NULL	*****	7.5	9.0
10-Mar-2004	PH	NULL	*****	NULL	*****	7.5	6.0	NULL	*****	7.5	9.0
12-Apr-2004	PH	NULL	*****	NULL	*****	7.5	6.0	NULL	*****	7.5	9.0
11-May-2004	PH	NULL	*****	NULL	*****	7.0	6.0	NULL	*****	7.5	9.0
10-Jun-2004	PH	NULL	*****	NULL	*****	7.5	6.0	NULL	*****	7.5	9.0
09-Jul-2004	PH	NULL	*****	NULL	*****	7.5	6.0	NULL	*****	7.5	9.0
11-Aug-2004	PH	NULL	*****	NULL	*****	7.0	6.0	NULL	*****	7.5	9.0
13-Sep-2004	PH	NULL	*****	NULL	*****	7.0	6.0	NULL	*****	7.5	9.0
12-Oct-2004	PH	NULL	*****	NULL	*****	7.5	6.0	NULL	*****	7.5	9.0
09-Nov-2004	PH	NULL	*****	NULL	*****	7.5	6.0	NULL	*****	7.5	9.0
10-Dec-2004	PH	NULL	*****	NULL	*****	7.5	6.0	NULL	*****	7.5	9.0
11-Jan-2005	PH	NULL	*****	NULL	*****	6.7	6.0	NULL	*****	7.5	9.0
10-Feb-2005	PH	NULL	*****	NULL	*****	6.9	6.0	NULL	*****	8.0	9.0
11-Mar-2005	PH	NULL	*****	NULL	*****	7.3	6.0	NULL	*****	8.0	9.0
11-Apr-2005	PH	NULL	*****	NULL	*****	6.7	6.0	NULL	*****	8.0	9.0
11-May-2005	PH	NULL	*****	NULL	*****	6.4	6.0	NULL	*****	7.5	9.0
13-Jun-2005	PH	NULL	*****	NULL	*****	7.0	6.0	NULL	*****	7.7	9.0
11-Jul-2005	PH	NULL	*****	NULL	*****	7.0	6.0	NULL	*****	7.8	9.0

11-Aug-2005	PH	NULL	*****	NULL	*****	6.3	6.0	NULL	*****	7.9	9.0
12-Sep-2005	PH	NULL	*****	NULL	*****	7.0	6.0	NULL	*****	7.6	9.0
11-Oct-2005	PH	NULL	*****	NULL	*****	6.7	6.0	NULL	*****	7.8	9.0
10-Nov-2005	PH	NULL	*****	NULL	*****	6.8	6.0	NULL	*****	7.9	9.0
09-Dec-2005	PH	NULL	*****	NULL	*****	6.8	6.0	NULL	*****	7.5	9.0
10-Jan-2006	PH	NULL	*****	NULL	*****	7.0	6.0	NULL	*****	8.0	9.0
13-Feb-2006	PH	NULL	*****	NULL	*****	7.0	6.0	NULL	*****	8.0	9.0
10-Mar-2006	PH	NULL	*****	NULL	*****	7.0	6.0	NULL	*****	8.0	9.0
11-Apr-2006	PH	NULL	*****	NULL	*****	7.0	6.0	NULL	*****	8.0	9.0
11-May-2006	PH	NULL	*****	NULL	*****	6.9	6.0	NULL	*****	8.0	9.0
09-Jun-2006	PH	NULL	*****	NULL	*****	6.6	6.0	NULL	*****	8.5	9.0
11-Jul-2006	PH	NULL	*****	NULL	*****	6.7	6.0	NULL	*****	8.0	9.0
11-Aug-2006	PH	NULL	*****	NULL	*****	6.3	6.0	NULL	*****	7.5	9.0
11-Sep-2006	PH	NULL	*****	NULL	*****	6.5	6.0	NULL	*****	7.8	9.0
11-Oct-2006	PH	NULL	*****	NULL	*****	6.1	6.0	NULL	*****	7.5	9.0
13-Nov-2006	PH	NULL	*****	NULL	*****	6.1	6.0	NULL	*****	7.4	9.0
11-Dec-2006	PH	NULL	*****	NULL	*****	6.1	6.0	NULL	*****	7.0	9.0
11-Jan-2007	PH	NULL	*****	NULL	*****	6.4	6.0	NULL	*****	7.3	9.0
12-Feb-2007	PH	NULL	*****	NULL	*****	6.4	6.0	NULL	*****	7.2	9.0
12-Mar-2007	PH	NULL	*****	NULL	*****	7.1	6.0	NULL	*****	7.3	9.0
10-Apr-2007	PH	NULL	*****	NULL	*****	6.8	6.0	NULL	*****	7.6	9.0
09-May-2007	PH	NULL	*****	NULL	*****	6.7	6.0	NULL	*****	8.2	9.0
11-Jun-2007	PH	NULL	*****	NULL	*****	6.4	6.0	NULL	*****	8.1	9.0
11-Jul-2007	PH	NULL	*****	NULL	*****	6.5	6.0	NULL	*****	7.7	9.0
13-Aug-2007	PH	NULL	*****	NULL	*****	7.0	6.0	NULL	*****	8.2	9.0
10-Sep-2007	PH	NULL	*****	NULL	*****	6.6	6.0	NULL	*****	7.8	9.0
11-Oct-2007	PH	NULL	*****	NULL	*****	NULL	6.0	NULL	*****	NULL	9.0
13-Nov-2007	PH	NULL	*****	NULL	*****	6.4	6.0	NULL	*****	7.6	9.0
11-Dec-2007	PH	NULL	*****	NULL	*****	6.7	6.0	NULL	*****	7.5	9.0
11-Jan-2008	PH	NULL	*****	NULL	*****	6.2	6.0	NULL	*****	7.2	9.0
11-Feb-2008	PH	NULL	*****	NULL	*****	6.1	6.0	NULL	*****	8.9	9.0
11-Feb-2003	TKN (N-KJEL)	0.03	0.14	0.04	0.21	NULL	*****	6.31	5.0	10.70	7.5

11-Mar-2003	TKN (N-KJEL)	0.05	NL	0.07	NL	NULL	*****	7.60	NL	8.32	NL
11-Apr-2003	TKN (N-KJEL)	0.05	NL	0.07	NL	NULL	*****	3.90	NL	5.69	NL
12-May-2003	TKN (N-KJEL)	0.05	NL	0.07	NL	NULL	*****	4.08	NL	4.47	NL
11-Jun-2003	TKN (N-KJEL)	0.11	NL	0.18	NL	NULL	*****	6.42	NL	9.88	*****
11-Jul-2003	TKN (N-KJEL)	0.21	NL	0.32	NL	NULL	*****	9.56	NL	NULL	*****
11-Aug-2003	TKN (N-KJEL)	0.25	NL	0.44	NL	NULL	*****	19.74	NL	NULL	*****
11-Sep-2003	TKN (N-KJEL)	0.16	NL	0.28	NL	NULL	*****	13.38	NL	NULL	*****
14-Oct-2003	TKN (N-KJEL)	0.16	NL	0.14	NL	NULL	*****	11.75	NL	NULL	*****
12-Nov-2003	TKN (N-KJEL)	0.09	NL	0.10	NL	NULL	*****	NULL	NL	NULL	*****
11-Dec-2003	TKN (N-KJEL)	0.15	NL	0.20	NL	NULL	*****	6.47	NL	NULL	*****
12-Jan-2004	TKN (N-KJEL)	0.08	NL	0.18	NL	NULL	*****	5.29	NL	NULL	*****
12-Feb-2004	TKN (N-KJEL)	0.07	NL	0.12	NL	NULL	*****	8.77	NL	NULL	*****
10-Mar-2004	TKN (N-KJEL)	0..05	NL	0.06	NL	NULL	*****	5.21	NL	NULL	*****
12-Apr-2004	TKN (N-KJEL)	0.09	NL	0.16	NL	NULL	*****	7.25	NL	NULL	*****
11-May-2004	TKN (N-KJEL)	0.11	NL	0.12	NL	NULL	*****	8.95	NL	NULL	*****
10-Jun-2004	TKN (N-KJEL)	0.11	NL	0.14	NL	NULL	*****	14.05	NL	NULL	*****
09-Jul-2004	TKN (N-KJEL)	0.13	NL	0.24	NL	NULL	*****	16.10	NL	NULL	*****
11-Aug-2004	TKN (N-KJEL)	0.11	NL	0.22	NL	NULL	*****	12.73	NL	NULL	*****
13-Sep-2004	TKN (N-KJEL)	0.07	NL	0.16	NL	NULL	*****	7.95	NL	NULL	*****
12-Oct-2004	TKN (N-KJEL)	0.04	NL	0.04	NL	NULL	*****	5.68	NL	NULL	*****
09-Nov-2004	TKN (N-KJEL)	0.05	NL	0.08	NL	NULL	*****	5.74	NL	NULL	*****
10-Dec-2004	TKN (N-KJEL)	0.05	NL	0.07	NL	NULL	*****	8.64	NL	NULL	*****
11-Jan-2005	TKN (N-KJEL)	0.04	NL	0.04	NL	NULL	*****	4.89	NL	NULL	*****
10-Feb-2005	TKN (N-KJEL)	0.03	NL	0.05	NL	NULL	*****	3.45	NL	NULL	*****
11-Mar-2005	TKN (N-KJEL)	0.03	0.14	0.03	0.21	NULL	*****	5.17	5.0	NULL	7.5
11-Apr-2005	TKN (N-KJEL)	0.03	NL	0.06	NL	NULL	*****	3.25	NL	NULL	*****
11-May-2005	TKN (N-KJEL)	0.06	NL	0.10	NL	NULL	*****	5.82	NL	NULL	*****
13-Jun-2005	TKN (N-KJEL)	0.09	NL	0.14	NL	NULL	*****	8.62	NL	NULL	*****
11-Jul-2005	TKN (N-KJEL)	0.05	NL	0.09	NL	NULL	*****	5.91	NL	NULL	*****
11-Aug-2005	TKN (N-KJEL)	0.09	NL	0.20	NL	NULL	*****	5.34	NL	NULL	*****
12-Sep-2005	TKN (N-KJEL)	0.05	NL	0.08	NL	NULL	*****	4.75	NL	NULL	*****
11-Oct-2005	TKN (N-KJEL)	0.03	NL	0.06	NL	NULL	*****	4.11	NL	NULL	*****

10-Nov-2005	TKN (N-KJEL)	0.02	NL	0.03	NL	NULL	*****	2.78	NL	NULL	*****
09-Dec-2005	TKN (N-KJEL)	0.02	NL	0.04	NL	NULL	*****	2.19	NL	NULL	*****
10-Jan-2006	TKN (N-KJEL)	0.02	NL	0.02	NL	NULL	*****	2.02	NL	NULL	*****
13-Feb-2006	TKN (N-KJEL)	0.01	NL	0.01	NL	NULL	*****	1.37	NL	NULL	*****
10-Mar-2006	TKN (N-KJEL)	0.01	NL	0.02	NL	NULL	*****	1.63	NL	NULL	*****
11-Apr-2006	TKN (N-KJEL)	0.02	NL	0.03	NL	NULL	*****	4.39	NL	NULL	*****
11-May-2006	TKN (N-KJEL)	0.05	NL	0.11	NL	NULL	*****	5.13	NL	NULL	*****
09-Jun-2006	TKN (N-KJEL)	0.07	NL	0.07	NL	NULL	*****	4.40	NL	NULL	*****
11-Jul-2006	TKN (N-KJEL)	0.04	NL	0.05	NL	NULL	*****	4.59	NL	NULL	*****
11-Aug-2006	TKN (N-KJEL)	0.17	NL	0.35	NL	NULL	*****	10.42	NL	NULL	*****
11-Sep-2006	TKN (N-KJEL)	0.11	NL	0.21	NL	NULL	*****	10.04	NL	NULL	*****
11-Oct-2006	TKN (N-KJEL)	0.15	NL	0.20	NL	NULL	*****	12.46	NL	NULL	*****
13-Nov-2006	TKN (N-KJEL)	0.07	NL	0.09	NL	NULL	*****	6.33	NL	NULL	*****
11-Dec-2006	TKN (N-KJEL)	0.14	NL	0.41	NL	NULL	*****	3.92	NL	NULL	*****
11-Jan-2007	TKN (N-KJEL)	0.06	NL	0.09	NL	NULL	*****	7.04	NL	NULL	*****
12-Feb-2007	TKN (N-KJEL)	0.17	NL	0.24	NL	NULL	*****	7.76	NL	NULL	*****
12-Mar-2007	TKN (N-KJEL)	0.08	NL	0.16	NL	NULL	*****	12.50	NL	NULL	*****
10-Apr-2007	TKN (N-KJEL)	0.04	NL	0.07	NL	NULL	*****	6.23	NL	NULL	*****
09-May-2007	TKN (N-KJEL)	0.07	NL	0.12	NL	NULL	*****	9.06	NL	NULL	*****
11-Jun-2007	TKN (N-KJEL)	0.04	NL	0.04	NL	NULL	*****	6.00	NL	NULL	*****
11-Jul-2007	TKN (N-KJEL)	0.05	NL	0.06	NL	NULL	*****	7.91	NL	NULL	*****
13-Aug-2007	TKN (N-KJEL)	0.18	NL	0.10	NL	NULL	*****	18.20	NL	NULL	*****
10-Sep-2007	TKN (N-KJEL)	0.33	NL	0.33	NL	NULL	*****	15.40	NL	15.4	*****
11-Oct-2007	TKN (N-KJEL)	NULL	0.14	NULL	0.21	NULL	*****	NULL	5.0	NULL	7.5
13-Nov-2007	TKN (N-KJEL)	0.09	0.14	0.09	0.21	NULL	*****	5.47	5.0	5.47	7.5
11-Dec-2007	TKN (N-KJEL)	0.11	0.14	0.11	0.21	NULL	*****	7.98	5.0	7.98	7.5
11-Jan-2008	TKN (N-KJEL)	0.05	0.14	0.05	0.21	NULL	*****	3.00	5.0	3	7.5
11-Feb-2008	TKN (N-KJEL)	0.04	0.14	0.04	0.21	NULL	*****	3.16	5.0	3.16	7.5
11-Feb-2003	TSS	0.07	0.43	0.16	0.62	NULL	*****	12.33	15.0	14.30	22.0
11-Mar-2003	TSS	0.10	0.85	0.17	NL	NULL	*****	12.48	30.0	15.60	NL
11-Apr-2003	TSS	0.25	0.43	0.46	0.62	NULL	*****	18.63	15.0	30.20	22.0
12-May-2003	TSS	0.14	0.43	0.29	0.62	NULL	*****	8.4	15.0	12.9	22.0

11-Jun-2003	TSS	0.09	0.85	0.12	NL	NULL	*****	5.6	30.0	7.0	NL
11-Jul-2003	TSS	0.26	0.85	0.39	NL	NULL	*****	11.8	30.0	14.3	NL
11-Aug-2003	TSS	0.26	0.85	0.51	NL	NULL	*****	20.4	30.0	28.1	NL
11-Sep-2003	TSS	0.29	0.85	0.35	NL	NULL	*****	24.6	30.0	31.8	NL
14-Oct-2003	TSS	0.29	0.85	0.18	NL	NULL	*****	19.2	30.0	16.8	NL
12-Nov-2003	TSS	0.11	0.85	0.17	NL	NULL	*****	9.0	30.0	11.9	NL
11-Dec-2003	TSS	0.22	0.85	0.34	NL	NULL	*****	8.8	30.0	12.3	NL
12-Jan-2004	TSS	0.34	0.85	1.34	NL	NULL	*****	19.1	30.0	70.0	NL
12-Feb-2004	TSS	0.07	0.85	0.09	NL	NULL	*****	9.1	30.0	15.4	NL
10-Mar-2004	TSS	0.07	0.85	0.08	NL	NULL	*****	7.1	30.0	11.0	NL
12-Apr-2004	TSS	0.24	0.85	0.76	NL	NULL	*****	18.5	30.0	39.5	NL
11-May-2004	TSS	0.11	0.85	0.14	NL	NULL	*****	10.6	30.0	17.2	NL
10-Jun-2004	TSS	0.13	0.85	0.19	NL	NULL	*****	17.3	30.0	31.9	NL
09-Jul-2004	TSS	0.09	0.85	0.17	NL	NULL	*****	11.8	30.0	16.1	NL
11-Aug-2004	TSS	0.15	0.85	0.19	NL	NULL	*****	20.0	30.0	23.0	NL
13-Sep-2004	TSS	0.21	0.85	0.44	NL	NULL	*****	22.3	30.0	31.7	NL
12-Oct-2004	TSS	0.06	0.85	0.08	NL	NULL	*****	7.5	30.0	10.4	NL
09-Nov-2004	TSS	0.03	0.85	0.05	NL	NULL	*****	3.7	30.0	4.9	NL
10-Dec-2004	TSS	0.05	0.85	0.05	NL	NULL	*****	7.7	30.0	8.3	NL
11-Jan-2005	TSS	0.05	0.85	0.05	NL	NULL	*****	6.5	30.0	8.8	NL
10-Feb-2005	TSS	0.10	0.85	0.18	NL	NULL	*****	13.0	30.0	22.4	NL
11-Mar-2005	TSS	0.11	0.43	0.19	0.62	NULL	*****	16.2	15.0	23.5	22.0
11-Apr-2005	TSS	0.07	0.43	0.09	0.62	NULL	*****	7.1	15.0	6.9	22.0
11-May-2005	TSS	0.15	0.85	0.29	NL	NULL	*****	13.4	30.0	21.1	NL
13-Jun-2005	TSS	0.04	0.85	0.05	NL	NULL	*****	3.5	30.0	3.8	NL
11-Jul-2005	TSS	0.11	0.85	0.13	NL	NULL	*****	12.4	30.0	17.7	NL
11-Aug-2005	TSS	0.46	0.85	0.85	NL	NULL	*****	28.2	30.0	38.6	NL
12-Sep-2005	TSS	0.18	0.85	0.29	NL	NULL	*****	19.2	30.0	39.1	NL
11-Oct-2005	TSS	0.14	0.85	0.25	NL	NULL	*****	18.8	30.0	22.9	NL
10-Nov-2005	TSS	0.08	0.85	0.12	NL	NULL	*****	12.0	30.0	19.8	NL
09-Dec-2005	TSS	0.12	0.85	0.26	NL	NULL	*****	11.3	30.0	23.5	NL
10-Jan-2006	TSS	0.04	0.85	0.06	NL	NULL	*****	4.8	30.0	7.5	NL

13-Feb-2006	TSS	0.03	0.85	0.05	NL	NULL	*****	5.6	30.0	12.8	NL
10-Mar-2006	TSS	0.02	0.85	0.05	NL	NULL	*****	3.3	30.0	4.2	NL
11-Apr-2006	TSS	0.02	0.85	0.05	NL	NULL	*****	3.8	30.0	6.7	NL
11-May-2006	TSS	0.04	0.85	0.07	NL	NULL	*****	4.2	30.0	9.1	NL
09-Jun-2006	TSS	0.08	0.85	0.08	NL	NULL	*****	5.2	30.0	7.8	NL
11-Jul-2006	TSS	0.29	0.85	1.22	NL	NULL	*****	24.4	30.0	87.6	NL
11-Aug-2006	TSS	0.37	0.85	0.60	NL	NULL	*****	24.4	30.0	27.8	NL
11-Sep-2006	TSS	0.16	0.85	0.41	NL	NULL	*****	13.8	30.0	21.4	NL
11-Oct-2006	TSS	0.20	0.85	0.30	NL	NULL	*****	16.6	30.0	21.4	NL
13-Nov-2006	TSS	0.13	0.85	0.23	NL	NULL	*****	12.3	30.0	20.9	NL
11-Dec-2006	TSS	0.32	0.85	1.03	NL	NULL	*****	7.9	30.0	10.1	NL
11-Jan-2007	TSS	0.05	0.85	0.07	NL	NULL	*****	6.0	30.0	8.3	NL
12-Feb-2007	TSS	0.33	0.85	0.58	NL	NULL	*****	14.6	30.0	19.4	NL
12-Mar-2007	TSS	0.15	0.85	0.27	NL	NULL	*****	24.3	30.0	26.8	NL
10-Apr-2007	TSS	0.18	0.85	0.43	NL	NULL	*****	23.3	30.0	39.6	NL
09-May-2007	TSS	0.08	0.43	0.12	0.62	NULL	*****	10.9	15.0	12.2	22.0
11-Jun-2007	TSS	0.08	0.85	0.04	NL	NULL	*****	13.7	30.0	7.2	NL
11-Jul-2007	TSS	0.12	0.85	0.16	NL	NULL	*****	19.2	30.0	26.0	NL
13-Aug-2007	TSS	0.46	0.85	0.40	NL	NULL	*****	50.4	30.0	65.9	NL
10-Sep-2007	TSS	0.55	0.85	0.64	NL	NULL	*****	32.2	30.0	42.6	NL
11-Oct-2007	TSS	NULL	0.43	NULL	0.62	NULL	*****	NULL	15.0	NULL	22.0
13-Nov-2007	TSS	0.18	0.43	0.18	0.62	NULL	*****	10.6	15.0	10.6	22.0
11-Dec-2007	TSS	0.05	0.43	0.05	0.62	NULL	*****	3.6	15.0	3.6	22.0
11-Jan-2008	TSS	0.07	0.43	0.07	0.62	NULL	*****	4.4	15.0	4.4	22.0
11-Feb-2008	TSS	0.07	0.43	0.07	0.62	NULL	*****	5.7	15.0	5.7	22.0

MEMORANDUM

VIRGINIA WATER CONTROL BOARD
NORTHERN REGIONAL OFFICE

1519 Davis Ford Road, Suite 14

Woodbridge, Virginia 22192

SUBJECT: Stream Model - Evergreen Country Club Wastewater
Treatment Plant, VPDES Permit Application No. VANRO0065JD

TO: Dale Phillips, OWRM

FROM: Jennie Dollard, NRO *hd*

DATE: July 29, 1992

COPIES:

OWRM comments on the referenced stream model and proposed effluent limitations are requested. The proposed effluent limitations are:

Flow = 7500 gpd
CBOD₅ = 10 mg/l avg/ 15 mg/l max
TSS = 15 mg/l avg/ 22 mg/l max
TKN = 5 mg/l avg/ 7.5 mg/l max
NH₃-N = 2.1 mg/l avg/ 2.1 mg/l max
D.O. = 6.5 mg/l minimum
pH = 6.0 - 9.0 S.U.
TRC = ND at 001; 1.0 mg/l minimum after chlorine contact

The Evergreen Country Club WWTP discharges into a ditch and then into an unnamed tributary of Chestnut Lick. The receiving stream flows into a large pond (est. volume > 2 million gallons) approximately 0.34 mile downstream of the discharge ditch. The 7Q10 of the receiving stream was estimated as 0.0 gpd due to the small drainage area at the point of discharge.

The NH₃-N limitation is based on the water quality standards. Receiving stream pH and temperature measurements taken 7-22-92 were 7.4 S.U. and 20.4°C. The permit application presented analytical results for one effluent sample. The effluent pH was reported as 6.6 S.U. The chronic ammonia water quality standard at 20°C and a pH range of 6.5 - 7.5 is 2.53 mg/l NH₃. The effluent limitation (monthly average and maximum) was set equal to the calculated chronic wasteload allocation.

The TKN limitation was established as the sum of the ammonia-nitrogen limit (approx. 2 mg/l) and a refractory organic concentration of 3 mg/l. Phosphorus limitations were considered, but are not proposed for the permit due to the small size of the discharge.

The CBOD₅ and Dissolved Oxygen limitations are based on the stream model. These limits minimize the drop in dissolved oxygen within the stream segment. TSS limitations are based on best professional opinion.

REGIONAL MODELING SYSTEM

VERSION 3.2

DATA FILE SUMMARY

THE NAME OF THE DATA FILE IS: EVRGREEN.MOD

THE STREAM NAME IS: Chestnut Lick
THE RIVER BASIN IS: Potomac River
THE SECTION NUMBER IS: 7a
THE CLASSIFICATION IS: IIII

STANDARDS VIOLATED (Y/N) = N
STANDARDS APPROPRIATE (Y/N) = Y

DISCHARGE WITHIN 3 MILES (Y/N) = N

THE DISCHARGE BEING MODELED IS: Evergreen Country Club

PROPOSED LIMITS ARE:
FLOW = .0075 MGD
BOD5 = 10 MG/L
TKN = 5 MG/L
O.D. = 6.5 MG/L

THE NUMBER OF SEGMENTS TO BE MODELED = 2

7Q10 WILL BE CALCULATED BY: DRAINAGE AREA COMPARISON
THE GAUGE NAME IS: USGS # 12345
GAUGE DRAINAGE AREA = 1 SQ.MI.
GAUGE 7Q10 = 0 MGD
DRAINAGE AREA AT DISCHARGE = 2 SQ.MI.

STREAM A DRY DITCH AT DISCHARGE (Y/N) = Y
ANTIDegradation APPLIES (Y/N) = N

ALLOCATION DESIGN TEMPERATURE = 20 °C

 REGIONAL MODELING SYSTEM VERSION 3.2

MODEL SIMULATION FOR THE Evergreen Country Club DISCHARGE
 TO Chestnut Lick

 THE SIMULATION STARTS AT THE Evergreen Country Club DISCHARGE

***** PROPOSED PERMIT LIMITS *****

FLOW = .0075 MGD cBOD5 = 10 Mg/L TKN = 5 Mg/L D.O. = 6.5 Mg/L

**** THE MAXIMUM CHLORINE ALLOWABLE IN THE DISCHARGE IS 0.011 Mg/L ****

 THE SECTION BEING MODELED IS BROKEN INTO 2 SEGMENTS
 RESULTS WILL BE GIVEN AT 0.1 MILE INTERVALS

***** BACKGROUND CONDITIONS *****

THE 7Q10 STREAM FLOW AT THE DISCHARGE IS 0.00000 MGD
 THE DISSOLVED OXYGEN OF THE STREAM IS 8.066 Mg/L
 THE BACKGROUND cBODu OF THE STREAM IS 5 Mg/L
 THE BACKGROUND nBOD OF THE STREAM IS 0 Mg/L

***** MODEL PARAMETERS *****

SEG.	LEN. Mi	VEL. F/S	K2 1/D	K1 1/D	KN 1/D	BENTHIC Mg/L	ELEV. Ft	TEMP. °C	DO-SAT Mg/L
1	0.02	0.486	20.000	1.400	0.400	0.000	422.50	20.00	8.962
2	0.34	0.389	14.118	1.400	0.500	0.000	416.00	20.00	8.964

(The K Rates shown are at 20°C ... the model corrects them for temperature.)

RESPONSE FOR SEGMENT 1

TOTAL STREAMFLOW = 0.0075 MGD
(Including Discharge)

DISTANCE FROM HEAD OF SEGMENT (MI.)	TOTAL DISTANCE FROM MODEL BEGINNING (MI.)	DISSOLVED OXYGEN (Mg/L)	cBODu (Mg/L)	nBODu (Mg/L)
0.000	0.000	6.500	25.000	8.660
0.020	0.020	6.527	24.912	8.651

FOR THE TRIBUTARY AT THE END OF SEGMENT 1

FLOW = 0 MGD cBOD5 = 2 Mg/L TKN = 0 Mg/L D.O. = 8.0659 Mg/L

FLOW FROM INCREMENTAL DRAINAGE AREA = 0.0000 MGD

RESPONSE FOR SEGMENT 2

TOTAL STREAMFLOW = 0.0075 MGD
(Including Discharge, Tributaries and Incremental D.A. Flow)

DISTANCE FROM HEAD OF SEGMENT (MI.)	TOTAL DISTANCE FROM MODEL BEGINNING (MI.)	DISSOLVED OXYGEN (Mg/L)	cBODu (Mg/L)	nBODu (Mg/L)
0.000	0.020	6.527	24.912	8.651
0.100	0.120	6.465	24.371	8.584
0.200	0.220	6.427	23.841	8.517
0.300	0.320	6.407	23.323	8.450
0.340	0.360	6.403	23.119	8.424

 $\Delta DO = 0.097$

REGIONAL MODELING SYSTEM
07-29-1992 10:16:12

Ver 3.2 (OWRM - 9/90)

DATA FILE = EVRGREEN.MOD

DATA FILE SUMMARY

THE NAME OF THE DATA FILE IS: EVRGREEN.MOD

THE STREAM NAME IS: Chestnut Lick
THE RIVER BASIN IS: Potomac River
THE SECTION NUMBER IS: 7a
THE CLASSIFICATION IS: IIII

STANDARDS VIOLATED (Y/N) = N
STANDARDS APPROPRIATE (Y/N) = Y

DISCHARGE WITHIN 3 MILES (Y/N) = N

THE DISCHARGE BEING MODELED IS: Evergreen Country Club

PROPOSED LIMITS ARE:
FLOW = .0075 MGD
BOD5 = 10 MG/L
TKN = 5 MG/L
D.O. = 6.5 MG/L

THE NUMBER OF SEGMENTS TO BE MODELED = 2

7Q10 WILL BE CALCULATED BY: DRAINAGE AREA COMPARISON
THE GAUGE NAME IS: USGS # 12345
GAUGE DRAINAGE AREA = 1 SQ.MI.
GAUGE 7Q10 = 0 MGD
DRAINAGE AREA AT DISCHARGE = 2 SQ.MI.

STREAM A DRY DITCH AT DISCHARGE (Y/N) = Y
ANTIDEGRADATION APPLIES (Y/N) = N

ALLOCATION DESIGN TEMPERATURE = 20 °C

SEGMENT INFORMATION

SEGMENT # 1

SEGMENT ENDS BECAUSE: A TRIBUTARY ENTERS AT END

SEGMENT LENGTH = .02 MI

SEGMENT WIDTH = .69 FT
SEGMENT DEPTH = .085 FT
SEGMENT VELOCITY = .2 FT/SEC

DRAINAGE AREA AT SEGMENT START = .1 SQ.MI.
DRAINAGE AREA AT SEGMENT END = .12 SQ.MI.

ELEVATION AT UPSTREAM END = 425 FT
ELEVATION AT DOWNSTREAM END = 420 FT

THE CROSS SECTION IS: RECTANGULAR
THE CHANNEL IS: MOSTLY STRAIGHT

POOLS AND RIFFLES (Y/N) = N

THE BOTTOM TYPE = SILT
SLUDGE DEPOSITS = NONE
AQUATIC PLANTS = NONE
ALGAE OBSERVED = NONE
WATER COLORED GREEN (Y/N) = N

TRIBUTARY DATA

FLOW = 0 MGD
BOD5 = 2 MG/L
TKN = 0 MG/L
D.O. = 8.0659 MG/L

SEGMENT INFORMATION

SEGMENT # 2

SEGMENT ENDS BECAUSE: THE MODEL ENDS

SEGMENT LENGTH = .34 MI

SEGMENT WIDTH = .28 FT
SEGMENT DEPTH = .06 FT
SEGMENT VELOCITY = .67 FT/SEC

DRAINAGE AREA AT SEGMENT START = .12 SQ.MI.
DRAINAGE AREA AT SEGMENT END = .13 SQ.MI.

ELEVATION AT UPSTREAM END = 420 FT
ELEVATION AT DOWNSTREAM END = 412 FT

THE CROSS SECTION IS: RECTANGULAR
THE CHANNEL IS: MOSTLY STRAIGHT

POOLS AND RIFFLES (Y/N) = N

THE BOTTOM TYPE = SMALL ROCK
SLUDGE DEPOSITS = NONE
AQUATIC PLANTS = NONE
ALGAE OBSERVED = NONE
WATER COLORED GREEN (Y/N) = N

REGIONAL MODELING SYSTEM Ver 3.2 (OWRM - 9/90)
07-29-1992 10:16:51

Citizens may comment on the proposed reissuance of a permit that allows the release of treated wastewater into a water body in Prince William County, Virginia

PUBLIC COMMENT PERIOD: May 22, 2008 to 5:00 p.m. on June 23, 2008

PERMIT NAME: Virginia Pollutant Discharge Elimination System Permit – Wastewater

Owners or operators of municipal facilities that discharge or propose to discharge wastewater into the streams, rivers or bays of Virginia from a point source must apply for this permit. In general, point sources are fixed sources of pollution such as pipes, ditches or channels. The applicant must submit the application to the Department of Environmental Quality, under the authority of the State Water Control Board.

PURPOSE OF NOTICE: To invite the public to comment on the draft permit.

NAME, ADDRESS AND PERMIT NUMBER OF APPLICANT: Evergreen Country Club
P.O. Box 176, Haymarket, VA 22069
VA0087891

NAME AND ADDRESS OF FACILITY: Evergreen Country Club
SR 600, 1.5 miles south of SR 701, Haymarket, VA 22069

Project description: Evergreen Country Club has applied for a reissuance of a permit for Evergreen Country Club in Prince William County, Virginia. The applicant proposes to release treated sewage at a rate of 0.0075 Million Gallons per Day into the Chestnut Lick, UT in Prince William County that is in the Potomac River watershed. A watershed is the land area drained by a river and its incoming streams. The sludge will be disposed of at the Fauquier County Service Authority's Remington WWTP (VA0076805). The permit will limit the following pollutants to amounts that protect water quality: pH, cBOD, TSS, TKN, D.O. and *E. coli*.

How a decision is made: After public comments have been considered and addressed by the permit or other means, DEQ will make the final decision unless there is a public hearing. DEQ may hold a public hearing, including another comment period, if public response is significant and there are substantial, disputed issues relevant to the proposed permit. If there is a public hearing, the State Water Control Board will make the final decision.

HOW TO COMMENT: DEQ accepts comments by e-mail, fax or postal mail. All comments must be in writing and be received by DEQ during the comment period. The public also may request a public hearing.

WRITTEN COMMENTS MUST INCLUDE:

1. The names, mailing addresses and telephone numbers of the person commenting and of all people represented by the citizen.
2. If a public hearing is requested, the reason for holding a hearing, including associated concerns.
3. A brief, informal statement regarding the extent of the interest of the person commenting, including how the operation of the facility or activity affects the citizen.

TO REVIEW THE DRAFT PERMIT AND APPLICATION: The public may review the documents at the DEQ-Northern Regional Office every work day by appointment.

CONTACT FOR PUBLIC COMMENTS, DOCUMENT REQUESTS AND ADDITIONAL INFORMATION:

Name: Douglas Frasier

Address: DEQ-Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193

Phone: (703) 583-3873 E-mail: ddfrasier@deq.virginia.gov Fax: (703) 583-3841

STATE WATER CONTROL BOARD ENFORCEMENT ACTION
AMENDMENT TO
A SPECIAL ORDER BY CONSENT
ISSUED TO
EVERGREEN COUNTRY CLUB, INC
FOR THE
EVERGREEN COUNTRY CLUB SEWAGE TREATMENT PLANT
(VPDES Permit No. VA0087891)

SECTION A: Purpose

This is an Amendment to a Consent Special Order issued under the authority of Va. Code §§62.1-44.15 (8a) and (8d) and 10.1-1185, between the State Water Control Board and Evergreen Country Club, Inc. (“Evergreen”) regarding the Evergreen Country Club Sewage Treatment Plant, for the purpose of revising provisions of the Order issued by the State Water Control Board to Evergreen on October 8, 2002.

SECTION B: Basis for Amendment

1. Evergreen Country Club, Inc. owns the Evergreen Country Club STP which is operated by Environmental Systems Service (“ESS”) and located in Prince William County, Virginia. The Board issued a Consent Special Order to Evergreen on October 8, 2002 (“2002 Order”) to resolve violations of the State Water Control Law and Regulations including Permit limit exceedences of TSS, TKN, DO, chlorine, and CBOD5.

2. The Order required Evergreen, among other things, to design and construct a new STP and complete it within 18 months of beginning construction. Construction on the new STP began on April 10, 2005 yielding a required completion date, October 10, 2006.
3. The Order also required Evergreen to submit a closure plan for the existing STP within 30 days of beginning construction (i.e. May 10, 2005). DEQ did not receive the closure plan until November 28, 2005.
4. DEQ received correspondence from ESS dated September 29, 2006 which provided a new completion date for the STP as November 15, 2006 due to delays caused by lack of adequate electrical service from the Northern Virginia Electrical Company (NOVEC).
5. DEQ staff conducted a site visit on January 31, 2007. Dave Anderson, the Golf Course Superintendent, informed DEQ that while the new STP was still not online, the electrical issues with NOVEC had been resolved and that the STP should be online by the end of February 2007.
6. DEQ received no additional communication from Evergreen until February 20, 2007 when Anderson advised DEQ that the electrical work had to be delayed due to an outdated easement. Evergreen then provided completion dates of the week of March 30, 2007 and then the week of April 9, 2007. Neither of these completion dates were met as evident during a site inspection conducted by DEQ staff on April 11, 2007.
7. DEQ and Evergreen representatives met on May 23, 2007 and Evergreen explained that the current delay was caused by necessary rewiring of the new STP that had to be undertaken due to a design flaw. They expected the new STP to be online by June 1, 2007. This information was memorialized in a letter Evergreen submitted to DEQ on May 29, 2007.
8. Bryan Dolieslager, Evergreen's General Manager, contacted DEQ on June 5, 2007 to advise that it had run into additional complications including problems with both the STP pumps and blowers and that he was unable to provide a completion date. Mr. Dolieslager also contacted DEQ on July 17, 2007 advising of additional complications delaying the start-up of the STP.
9. DEQ received a letter from Evergreen's engineer, Waste Water Management, Inc., on July 23, 2007 requesting approval to place the STP in service. This request was verbally approved by DEQ Office of Wastewater Engineering on July 25, 2007.
10. Evergreen placed the new STP in service on July 30, 2007. During this initial period, Evergreen experienced various control system failures resulting in the discharge of effluent that failed to meet permitted effluent limits. As a result, beginning on August 31, 2007, Evergreen utilized pump and haul of the effluent and ceased discharging until equipment failures could be corrected.

11. Evergreen remained on pump and haul until it began discharging again on October 28, 2007. On November 5, 2007, Evergreen's operator discovered that the UV system had backed up due to a failing air control valve resulting in the loss of solids from the treatment plant into the receiving stream. Evergreen again initiated pump and haul of the effluent.
12. Evergreen began discharging from the STP in late November 2007 and was unable to meet permitted effluent limits, therefore, pump and haul was initiated until corrections could be made. In addition to the permit limit exceedances, DEQ learned through documentation attached to the November DMR received December 11, 2007, that the filtration unit was being bypassed beginning on November 28, 2007. Per the Permit, Part II, Section U, DEQ shall be notified within 24 hours of any unanticipated bypass. Evergreen failed to provide notification to DEQ of the bypass within this timeframe.
13. Due to the foregoing, the Board has evidence that Evergreen has violated its Permit, the 2002 Consent Order, and Va. Code § 62.1-44.5 which prohibits the discharge of sewage or any noxious or deleterious substances into state waters except in compliance with a Permit issued by the Board. These violations have been noted in the following Notices of Violation ("NOV") issued by DEQ:
 - NOV No. W2007-02-N-0006, dated February 9, 2007 citing a violation of the 2002 Order by failing to complete construction and close the old STP within the timeframe specified and a violation of the Permit for exceeding the weekly and monthly concentration average maximum limit for CBOD and the monthly concentration average limit for TKN as reported on the December 2006 DMR;
 - NOV No. W2007-03-N-0004, dated March 9, 2007 citing a violation of the 2002 Order for failing to complete construction and close the old STP within the timeframe specified;
 - NOV No. W2007-04-N-0002, dated April 12, 2007 citing a violation of the 2002 Order by failing to complete construction and close the old STP within the timeframe specified and a violation of the Permit for exceeding the monthly concentration average maximum limit for CBOD as reported on the February 2007 DMR;
 - NOV No. W2007-05-N-0002, dated May 11, 2007 citing a violation of the 2002 Order by failing to complete construction and close the old STP within the timeframe specified;
 - NOV No. W2007-06-N-0004, dated June 5, 2007 citing a violation of the 2002 Order by failing to complete construction and close the old STP within the timeframe specified;

- NOV No. W2007-07-N-0004, dated July 11, 2007 citing a violation of the 2002 Order by failing to complete construction and close the old STP within the timeframe specified and a violation of the Permit for failing to meet the instantaneous minimum limit for chlorine as reported on the May 2007 DMR;
 - NOV No. W2007-08-N-0007, dated August 10, 2007 citing a violation of the 2002 Order by failing to complete construction and close the old STP within the timeframe specified;
 - NOV No. W2007-09-N-0013, dated September 6, 2007 citing a violation of the 2002 Order by failing to complete construction and close the old STP within the timeframe specified and a violation of the Permit for exceeding the monthly concentration average limit for TSS and CBOD as reported on the July 2007 DMR;
 - NOV No. W2007-10-N-0003, dated October 3, 2007 citing a violation of the Permit for exceeding the weekly concentration maximum limit for E. Coli and the monthly concentration average limit for TSS as reported on the August 2007 DMR;
 - NOV No. W2007-11-N-0008, dated November 2, 2007 citing a violation of the 2002 Order by failing to complete construction and close the old STP within the timeframe specified;
 - NOV No. W2007-12-N-0009, dated December 6, 2007 citing a violation of the Permit for exceeding the monthly concentration average limit for TKN and CBOD and also the weekly concentration average maximum limit for E. Coli as reported on the October 2007 DMR;
 - NOV No. W2008-01-N-0002, dated January 9, 2008 citing a violation of the Permit for exceeding the monthly and weekly concentration average maximum limit for TKN, the weekly concentration average maximum limit for E. Coli, failing to submit a revised Operations and Maintenance Manual within 90 days of any changes, failing to submit a permit application at least 180 days prior to the expiration date of the existing permit, failing to notify DEQ of a bypass event, and a violation of the 2002 Consent Order for failing to close the old STP within the timeframe specified.
14. Evergreen has since submitted an updated Operations and Maintenance Manual that DEQ is reviewing. Evergreen is also currently working on the Permit application for submittal and continues to utilize pump and haul while design and construction deficiencies at the new STP are addressed.

SECTION C: Agreement and Order

Accordingly, the Board, by virtue of its authority granted in Va. Code §§62.1-44.15(8a) and (8d), orders Evergreen Country Club, Inc., and Evergreen Country Club, Inc. agrees to:

1. Perform the actions described in Appendix A of this Amended Order, which supersedes and cancels Appendix A and Appendix B of the 2002 Order. Both the State Water Control Board and Evergreen understand and agree that this Amendment does not alter, modify, or amend any other provision of the Order and that unmodified provisions of the Order remain in effect by their own terms.
2. Pay a civil charge of \$28,250.00 within 30 days of the effective date of this Amendment in the settlement of the violations cited in this Amendment. Payment shall be made by check payable to the "Treasurer of Virginia", delivered to:

Receipts Control
Department of Environmental Quality
Post Office Box 1104
Richmond, Virginia 23218

Either on a transmittal letter or as a notation on the check, Evergreen shall indicate that this payment is submitted pursuant to this Order and shall include the Federal Identification Number for Evergreen.

And it is so ORDERED this _____ day of _____, 2008.

Thomas A. Faha, Regional Director
Northern Department of Environmental Quality

Evergreen Country Club voluntarily agrees to the issuance of this Order.

By: _____

Date: _____

Commonwealth of Virginia
City/County of _____

The foregoing document was signed and acknowledged before me this _____ day of

_____, 2008, by _____ who is
(name)

_____ for Evergreen Country Club, Inc..
(title)

Notary Public

My commission expires: _____

APPENDIX A

Evergreen Country Club, Inc. agrees to:

1. Complete and submit to DEQ for review and approval by April 1, 2008, an assessment of the STP completed by a licensed engineer to determine the condition of and needed repairs of the STP including an evaluation of any discrepancies that may exist between the DEQ approved plans and specifications and the STP as built. The assessment shall include recommendations and a schedule for the repairs or upgrades that need to be made to the STP. Said schedule shall not exceed July 31, 2008 and upon approval by DEQ shall become an enforceable part of this Order.
2. By August 1, 2008, submit a written request for a Final Certificate to Operate (CTO) from DEQ for the new STP.
3. By April 30, 2008, complete construction of adequate fencing to protect the new STP electrical control components to ensure continuous reliability in compliance with 9 VAC 25-790-470(E)(4a).
4. By March 31, 2008, complete insulation of the new STP.
5. By August 31, 2008, close the existing STP in accordance with the approved closure plan.
6. Beginning March 1, 2008 and lasting for the life of this Order, increase E.Coli monitoring from once per month (1/M) to once per week (1/W). In addition, increase monitoring for CBOD, TKN, and TSS from once per month (1/M) to twice a month (2/M). Said sampling shall be reported on the applicable Discharge Monitoring Report.
7. Continue to have a licensed operator with at least a Class III wastewater treatment plant operator license perform daily routine maintenance a minimum of one hour each day at the STP.

Revised 2/2003

**State "Transmittal Checklist" to Assist in Targeting
Municipal and Industrial Individual NPDES Draft Permits for Review**

Part I. State Draft Permit Submission Checklist

In accordance with the MOA established between the Commonwealth of Virginia and the United States Environmental Protection Agency, Region III, the Commonwealth submits the following draft National Pollutant Discharge Elimination System (NPDES) permit for Agency review and concurrence.

Facility Name:	Evergreen Country Club
NPDES Permit Number:	VA0087891
Permit Writer Name:	Douglas Frasier
Date:	15 April 2008

Major []

Minor [X]

Industrial []

Municipal [X]

I.A. Draft Permit Package Submittal Includes:

	Yes	No	N/A
1. Permit Application?	X		
2. Complete Draft Permit (for renewal or first time permit – entire permit, including boilerplate information)?	X		
3. Copy of Public Notice?	X		
4. Complete Fact Sheet?	X		
5. A Priority Pollutant Screening to determine parameters of concern?			X
6. A Reasonable Potential analysis showing calculated WQBELs?	X		
7. Dissolved Oxygen calculations?	X		
8. Whole Effluent Toxicity Test summary and analysis?			X
9. Permit Rating Sheet for new or modified industrial facilities?			X

I.B. Permit/Facility Characteristics

	Yes	No	N/A
1. Is this a new, or currently unpermitted facility?		X	
2. Are all permissible outfalls (including combined sewer overflow points, non-process water and storm water) from the facility properly identified and authorized in the permit?	X		
3. Does the fact sheet or permit contain a description of the wastewater treatment process?	X		
4. Does the review of PCS/DMR data for at least the last 3 years indicate significant non-compliance with the existing permit?	X		
5. Has there been any change in streamflow characteristics since the last permit was developed?		X	
6. Does the permit allow the discharge of new or increased loadings of any pollutants?		X	
7. Does the fact sheet or permit provide a description of the receiving water body(s) to which the facility discharges, including information on low/critical flow conditions and designated/existing uses?	X		
8. Does the facility discharge to a 303(d) listed water?		X	
a. Has a TMDL been developed and approved by EPA for the impaired water?			X
b. Does the record indicate that the TMDL development is on the State priority list and will most likely be developed within the life of the permit?			X
c. Does the facility discharge a pollutant of concern identified in the TMDL or 303(d) listed water?	X		
9. Have any limits been removed, or are any limits less stringent, than those in the current permit?		X	
10. Does the permit authorize discharges of storm water?		X	

I.B. Permit/Facility Characteristics – cont.	Yes	No	N/A
11. Has the facility substantially enlarged or altered its operation or substantially increased its flow or production?	X		
12. Are there any production-based, technology-based effluent limits in the permit?	X		
13. Do any water quality-based effluent limit calculations differ from the State's standard policies or procedures?		X	
14. Are any WQBELs based on an interpretation of narrative criteria?		X	
15. Does the permit incorporate any variances or other exceptions to the State's standards or regulations?		X	
16. Does the permit contain a compliance schedule for any limit or condition?		X	
17. Is there a potential impact to endangered/threatened species or their habitat by the facility's discharge(s)?		X	
18. Have impacts from the discharge(s) at downstream potable water supplies been evaluated?	X		
19. Is there any indication that there is significant public interest in the permit action proposed for this facility?		X	
20. Have previous permit, application, and fact sheet been examined?	X		

Part II. NPDES Draft Permit Checklist

Region III NPDES Permit Quality Checklist – for POTWs (To be completed and included in the record only for POTWs)

II.A. Permit Cover Page/Administration	Yes	No	N/A
1. Does the fact sheet or permit describe the physical location of the facility, including latitude and longitude (not necessarily on permit cover page)?	X		
2. Does the permit contain specific authorization-to-discharge information (from where to where, by whom)?	X		

II.B. Effluent Limits – General Elements	Yes	No	N/A
1. Does the fact sheet describe the basis of final limits in the permit (e.g., that a comparison of technology and water quality-based limits was performed, and the most stringent limit selected)?	X		
2. Does the fact sheet discuss whether “antibacksliding” provisions were met for any limits that are less stringent than those in the previous NPDES permit?			X

II.C. Technology-Based Effluent Limits (POTWs)	Yes	No	N/A
1. Does the permit contain numeric limits for <u>ALL</u> of the following: BOD (or alternative, e.g., CBOD, COD, TOC), TSS, and pH?	X		
2. Does the permit require at least 85% removal for BOD (or BOD alternative) and TSS (or 65% for equivalent to secondary) consistent with 40 CFR Part 133?	X		
a. If no, does the record indicate that application of WQBELs, or some other means, results in more stringent requirements than 85% removal or that an exception consistent with 40 CFR 133.103 has been approved?			X
3. Are technology-based permit limits expressed in the appropriate units of measure (e.g., concentration, mass, SU)?	X		
4. Are permit limits for BOD and TSS expressed in terms of both long term (e.g., average monthly) and short term (e.g., average weekly) limits?	X		
5. Are any concentration limitations in the permit less stringent than the secondary treatment requirements (30 mg/l BOD5 and TSS for a 30-day average and 45 mg/l BOD5 and TSS for a 7-day average)?		X	
a. If yes, does the record provide a justification (e.g., waste stabilization pond, trickling filter, etc.) for the alternate limitations?			X

II.D. Water Quality-Based Effluent Limits	Yes	No	N/A
1. Does the permit include appropriate limitations consistent with 40 CFR 122.44(d) covering State narrative and numeric criteria for water quality?	X		
2. Does the fact sheet indicate that any WQBELs were derived from a completed and EPA approved TMDL?	X		
3. Does the fact sheet provide effluent characteristics for each outfall?	X		
4. Does the fact sheet document that a “reasonable potential” evaluation was performed?	X		
a. If yes, does the fact sheet indicate that the “reasonable potential” evaluation was performed in accordance with the State’s approved procedures?	X		
b. Does the fact sheet describe the basis for allowing or disallowing in-stream dilution or a mixing zone?			X
c. Does the fact sheet present WLA calculation procedures for all pollutants that were found to have “reasonable potential”?	X		
d. Does the fact sheet indicate that the “reasonable potential” and WLA calculations accounted for contributions from upstream sources (i.e., do calculations include ambient/background concentrations)?			X
e. Does the permit contain numeric effluent limits for all pollutants for which “reasonable potential” was determined?	X		

II.D. Water Quality-Based Effluent Limits – cont.	Yes	No	N/A
5. Are all final WQBELs in the permit consistent with the justification and/or documentation provided in the fact sheet?	X		
6. For all final WQBELs, are BOTH long-term AND short-term effluent limits established?	X		
7. Are WQBELs expressed in the permit using appropriate units of measure (e.g., mass, concentration)?	X		
8. Does the record indicate that an “antidegradation” review was performed in accordance with the State’s approved antidegradation policy?	X		

II.E. Monitoring and Reporting Requirements	Yes	No	N/A
1. Does the permit require at least annual monitoring for all limited parameters and other monitoring as required by State and Federal regulations?	X		
a. If no, does the fact sheet indicate that the facility applied for and was granted a monitoring waiver, AND, does the permit specifically incorporate this waiver?			
2. Does the permit identify the physical location where monitoring is to be performed for each outfall?		X	
3. Does the permit require at least annual influent monitoring for BOD (or BOD alternative) and TSS to assess compliance with applicable percent removal requirements?		X	
4. Does the permit require testing for Whole Effluent Toxicity?			X

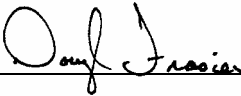
II.F. Special Conditions	Yes	No	N/A
1. Does the permit include appropriate biosolids use/disposal requirements?	X		
2. Does the permit include appropriate storm water program requirements?			X

II.F. Special Conditions – cont.	Yes	No	N/A
3. If the permit contains compliance schedule(s), are they consistent with statutory and regulatory deadlines and requirements?			X
4. Are other special conditions (e.g., ambient sampling, mixing studies, TIE/TRE, BMPs, special studies) consistent with CWA and NPDES regulations?	X		
5. Does the permit allow/authorize discharge of sanitary sewage from points other than the POTW outfall(s) or CSO outfalls [i.e., Sanitary Sewer Overflows (SSOs) or treatment plant bypasses]?			X
6. Does the permit authorize discharges from Combined Sewer Overflows (CSOs)?			X
a. Does the permit require implementation of the “Nine Minimum Controls”?			X
b. Does the permit require development and implementation of a “Long Term Control Plan”?			X
c. Does the permit require monitoring and reporting for CSO events?			X
7. Does the permit include appropriate Pretreatment Program requirements?			X

II.G. Standard Conditions	Yes	No	N/A
1. Does the permit contain all 40 CFR 122.41 standard conditions or the State equivalent (or more stringent) conditions?	X		
List of Standard Conditions – 40 CFR 122.41 <div style="display: flex; justify-content: space-between;"> <div> Duty to comply Duty to reapply Need to halt or reduce activity not a defense Duty to mitigate Proper O & M Permit actions </div> <div> Property rights Duty to provide information Inspections and entry Monitoring and records Signatory requirement Bypass Upset </div> <div> Reporting Requirements Planned change Anticipated noncompliance Transfers Monitoring reports Compliance schedules 24-Hour reporting Other non-compliance </div> </div>			
2. Does the permit contain the additional standard condition (or the State equivalent or more stringent conditions) for POTWs regarding notification of new introduction of pollutants and new industrial users [40 CFR 122.42(b)]?	X		

Part III. Signature Page

Based on a review of the data and other information submitted by the permit applicant, and the draft permit and other administrative records generated by the Department/Division and/or made available to the Department/Division, the information provided on this checklist is accurate and complete, to the best of my knowledge.

Name	<u>Douglas Frasier</u>
Title	<u>Environmental Specialist II</u>
Signature	<u></u>
Date	<u>15 April 2008</u>